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MONTHLY LETTER

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STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
Animal Health Division
Helena, Montana 59601

# MONTHLY LETTER

# DECEMBER 1979



# SEASONS GREETINGS

Thanksgiving is now past and we have embarked into the Holiday Season. It hardly seems possible to have this much of 1979 used up. I'm sure they don't put as many days in a year as they did when I was a kid. Those years were alot longer!

This year has gone by with any number of things happening to each of us, personally and professionally, for which we can be thankful. Just as long we are here every morning to watch and be sure the sun comes up is in itself enough to give thanks.

We here in the Animal Health Division - the Diagnostic Laboratory in Bozeman, the Helena Office Staff, the Veterinarians and Technicians in the field, all of us wish you all a very Merry Christmas and a Prosperous New Year.

# DIAGNOSTIC LABORATORY NEWS by Dr. William J. Quinn

# I. Accessions reported out in October:

	October 1979	October 1978	% change
BOVINE	72	97	-25.7%
EQUINE	83	36	130.0%
PORCINE	20	24	-16.6%
OVINE	22	3	633.3%
FELINE	16	16	
CANINE	52	44	18.0%
AVIAN	8	5	60.0%
WILDLIFE	21	16	31.2%
MISC.	20	29	-31.0%
TOTAL	314	270	16.3%

# II. Serology

- A. Brucellosis (all species) total sera -- 39,365
  - 1. Brucellosis routine tests -- 26,138, 73 positive
  - 2. Quarantine herd tests -- 2,571, 67 positive 3. Slaughter samples -- 10,656, 81 positive
- B. Seminal Plasma Brucellosis -- 15 samples
- C. Leptospirosis (all species) -- 189 sera
- Leptospirosis (all species) -- 189 ser
  - L. pomona -- 33 positive
     L. hardjo -- 37 positive
  - 3. L. icterohemorrhagia -- 14 positive
  - L. grippotyphosa -- 12 positive
     L. autumnalis -- 19 positive
  - L. autumnalis -- 19 positive
     L. tarassovi -- 2 positive
- D. EIA -- 330 sera, 3 positive
- E. Bluetongue -- 427 sera
- F. Anaplasmosis -- 341 sera
- G. IBR -- 84 sera, 16 positive
- H. BVD -- 65 sera, 4 positive
- I. PI3 -- 50 sera, 22 positive
- J. Wee and EEE -- 6 sera, 1 positive for WEE
- K. Pseudorabies total sera -- 109
  - 1. Routine tests -- 79
    - 2. Slaughter samples -- 30
- L. BLV -- 12 sera

### III. Rabies

- A. 60 requests
  - 1. Human exposure
    - a. 30 negative
  - 2. No human exposure
    - a. O positive
    - b. 30 negative

# IV. Bacteriology

- A. Total
  - 1. 177 accessions processed resulting in 196 isolates
- B. Antibiotic sensitivities were run on 163 isolates
- C. FAT (clostridia)
  - 1. 1 positive Cl. Chauvoei
  - 2. 5 negative Cl. Chauvoei, Cl. septicum, Cl. novyi
- D. Salmonella
  - 1. Salmonella dublin isolated from a calf
  - 2. Salmonella thompson isolated from a lamb
  - Salmonella sp. (presently being typed by NVSL, Ames, Iowa) isolated from 2 turkeys
- E. Public Health
  - 1. Francisella tularensis isolated from a beaver from Treasure County
- F. Brucella
  - 1. 22 sets of tissues representing 11 herds were cultured for Brucella
  - 2. Brucella abortus, Type I -- 2 isolations from one herd
- G. Miscellaneous
  - 1. Erysipelothrix rhusiopathiae porcine case
  - 2. Moraxella bovis -- bovine case

# V. Virology

- A. Virus isolation attempts
  - 1. 15 cases (7 bovine, 7 porcine, 1 bison)

# BRUCELLOSIS - AN OPINION

Once again the veterinarians least favorite, most maligned subject comes up. After attending the U.S. Animal Health Association's October meeting and sitting in on the Brucellosis Committee deliberations, it is very frustrating to review some of the changes in the Brucellosis UM & R that became effective September 4, 1979.

Many of the changes have little effect on Montana's progress in control of the disease since we are ahead of most states in our approach. Several of them

have major impact on Montana's industry, partially due to the federal government's (APHIS) reluctance to acknowledge that 40 years careening down a bad road needs to be changed.

The principle change (or rather so far, lack of) is the negligible change in view point on official calf vaccination. This particular subject can whip up more heated arguments between veterinarians (of all persuasions), ranchers, and interested by standers than any single subject short of religion.

A little history --- As most of us know, immunization of young heifers with the standard dose of Bangs vaccine, at times, can have appalling results. Anything from rapid deterioration and death to subsequent quarantine of a herd and test and slaughter of a part of those herd mates only to be released after partial decimation with the comment, "It was just a Strain 19 problem"

Poor old Mr. Producer is just as broke with Strain 19 as he is with Biotype I.

Why is this? Well with the proper application of the USDA approved Brucella vaccine you get too many persistent vaccinal titers. They interfere with the approved brucellosis test procedures, since the tests fall to distinguish between vaccinal and infection titers. A professional judgement is called for, to make this interpretation.

These interpreters over the years have learned to hate Brucella vaccine, regardless of manufacture, and prefer to see no vaccine used in a herd because of the cloud it puts on deciphering test results. I personally, feel this is wrong in the face of an endemic disease, to advocate buildup of a susceptible population.

Hereby are sown the seeds of dissent.

Many of us have felt for years that either tests should be developed that are not confused by vaccine or modification of vaccine should be accomplished so that it does not interfere with tests.

Very Simple? Not on your life. --

Attitudes are difficult to transform. In Ames, Iowa, Dr. Billy Deyoe has been running several experiments with brucellosis vaccination in heifers. In a nut shell here are his results.

Trials have been run using heifers that were 12 months of age (11-13 month range) at the time of vaccination. Dosage varied as follows:

Full present dose 10 X  $10^{10}$  (50 billion cells/5cc dose) 1/10 present dose 1 X  $10^{10}$  1/100 " " 1 X  $10^9$  1/1000 " " 1 X  $10^8$  1/10,000 " " 1 X  $10^7$ 

At all these dosage levels, immunity that resisted challenge was obtained. Persistence of reactor level titers varied from 33 weeks post vaccination with the full dosage to 2 weeks post vaccination with the lowest reduced dosage. Dr. Deyoe concludes that titer persistence is strictly related to dosage administered and that there is no correlation between dosage of vaccine administered and immunity gained.

In another test, conducted in a dairy herd in Texas, it was found that immunity was correlated with vaccination age and dosage, when animals were challenged under field conditions as they matured and entered the infected milking string.

The data shows that calves in this herd should be vaccinated with either the reduced dosage (equivalent to 1/20 of present dosage) or the standard dose after 120 days of age.

It was found that calves vaccinated with the standard dose between 60-120 days of age ended up with a 24% reactor rate after they were placed in the milking herd as opposed to approximately a 3% reactor rate in calves vaccinated later than 120 days of age and about a 6% rate in 60-120 day old calves vaccinated with the reduced dosage.

All of this, seems to me, to indicate that by adoption of a reduced vaccine dosage the bulk of the problems of the brucellosis program could be alleviated. Most of these problems are engendered by the presence of persistent vaccine titers! No one quibbles about titers in non-vaccinated infected cattle. We don't want them anymore than anyone else does.

Possibly the reduction of the vaccine dosage is too simplistic a solution. Be that as it may, I'm a simple person. I feel that if you repeatedly hit your thumb with the hammer, move the thumb, don't stop hammering!

# RAM EPIDIDYMITIS VACCINE AVAILABLE

by Dr. Glenn C. Halver

A bacterin for use in sheep as an aid to the prevention of ram epididymitis has been produced and released by the Veterinary Research Laboratory, Montana State University, Bozeman. This is a 5 cc dose bivalent vaccine for experimental use only in Montana.

This formalin inactivated antigen is intended for use in rams of all ages. On initial vaccination, a 5 cc dose is followed by a second in 30 days. Annual hyperimmunization is recommended thereafter. The antigen bivalency is accomplished by using <u>Brucella</u> ovis and <u>Actinobacillus</u> actinomycetemcomitans an isolate found frequently in RE lesions in Idaho studies. The vaccine has a two year dating and is being distributed by Midland Veterinary Supply at Billings for sale in Montana to veterinarians and sheep producers. However, <u>official</u> Re vaccination, as before, can be done only by veterinarians and such vaccination requires a tattoo in either ear using the quarter, the "shield" E and the year in which the second dose of the initial vaccination is administered. The Department of Livestock form SV-4 is to be completed as the certificate of RE vaccination, a copy of which is given to the owner and one submitted to the Helena office.

## DENVER STOCK SHOW

This January the Denver Stock Show will again be the site of show and sale for numerous Montana cattlemen. The department is making arrangements with the Colorado State Veterinarian to allow Montana destined cattle to enter our state accepting the dip at the stock show. Permits will be written there, so advise your clients going down to the show that they will obtain permits at Denver rather then calling in prior to going to Colorado.

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STATE VETERINARIAN



STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
Animal Health Division
Helena, Montana 59601

# MONTHLY LETTER

# NOVEMBER 1979

# P.C.B.

These three letters and a flippant attitude will net you a bloody nose administered by any one of several beleagured members (male & female) of the Department of Livestock.

Since September 11 this department has done little but contend with the up roar precipitated by disclosure of PCB (polychlorinated biphenal) levels in meat meal manufactured by Pierce Pack in Billings.

The FDA and USDA meat inspection personnel have been headquartered in the Helena office for the past month conducting an investigation. These agencies have been working with the state Departments of Livestock, Agriculture, and Health & Environmental Sciences in obtaining test samples from feed mills, retailers, slaughtering establishments and egg plants and getting them to laboratories around the country.

The results have been relayed back to Helena and decisions then have been made for the disposition of either eggs, animals, or other products.

Continuing the effort to face up as many producers as possible as rapidly as possible, the Animal Health Division has worked out a certification system whereby hog producers can present evidence of feeds used in their operation and if they are free of PCB contamination their hogs are certified clean of contamination and they are able to sell to slaughter.

If a producer has fed any of the "hot" lots of feed then he may have several head of pigs slaughtered, fat samples taken, carcasses retained until test results are back. Then if clean, his lots of pigs may be sold to slaughter.

This occurance has demonstrated rather bluntly how ill prepared, several of the Federal agencies are, to cope with a situation such as this where they have statutory duties in containing it. For the first two weeks of the ordeal FDA and USDA meat inspection had little communication and no agreements as to what tolerance levels were to be used.

By dint of the fact that the initial two FDA investigators were pretty practical level headed individuals and the State Veterinarian and Director of Agriculture yelled like mashed cats matters were forced to the point that state officials and the federal higher ups hammered out an agreement outlining handling methods and various agency responsibilities.

Now since things have subcided to a dull roar, the small producer (home consumption type) also has a test method available to clear his eggs, chickens and pork.

By all indications the certification process will likely continue for 4 - 6 months until all pigs, especially, and chickens that may have been exposed to the contaminated feed are fed out and through slaughter channels.

# DR. J. B. SCHMITT

Dr. J. B. Schmitt, (MSU-68) was killed in a plane crash in north eastern Idaho October 15, 1979. Raised in Stanford, J.B. graduated from high school there, took pre vet study at Montana State University and graduated from the college of Veterinary Medicine at Washington State. He had worked in Colorado and at Stanford for Ankony Inc. prior to moving to Bozeman and establishing a bovine practice in 1972. He is survived by his wife Sally and two children. Other survivors include his parents Mr. & Mrs. Lloyd Schmitt of Stanford and five brothers.

Our heart felt condolences to his wife Sally, their children, and his parents.

# MEMORANDUM TO ALL VETERINARIANS

In mid August 1979 the Board of Livestock rescinded the change of ownership brucellosis test requirement on bulls.

It is no longer necessary to test bulls for brucellosis, either in the markets or in country for change of ownership.

Bulls are still subject to test for disease control requirements in quarantine and contact herds, etc.

# RESULTS OF EQUINE RESPIRATORY DISEASE SURVEY

First off I'd like to thank the 14 practitioners that responded to the blind survey. I appreciate your interest.

There were several questions on the survey dealing with the subject, but there were three that I felt dealt with the question of state involvement in survey, definition and control of Equine respiratory disease.

- 1. Do you feel that this complex should be defined through serological survey and epidemiologic investigations? 8 Yes. 6 No.
- 2. Do you feel that immunization and control of equine respiratory disease is a client education problem with the practice? 11 Yes. 3 No.
- In your practice have you been able to effectively control the spread of equine respiratory diseases with your clientele's animals? 10 - Yes. 4 - No.

More practitioners indicated that they relied primarily on clinical diagnosis but about 30% indicated that laboratory back up was used.

Almost all respondents indicated that owners who object to immunization, do so because of costs primarily and misunderstanding of the situation secondarily.

My own opinion is that the problem is of interest but the state has no responsibility in either defining it or instituting controls, and this opinion is supported by the results so far, in the survey.

If upper respiratory problems need further definition and study for institution of control programs (which I personally don't feel are necessary) the studies should start in the bovine where loss of millions of dollars occurs annually in Montana. Already considerable effort has been put forth in the private sector in outlining, surveying and developement of methods of prevention and control of these diseases and the veterinary profession does and should avail themselves of this information to formulate programs of its own.

Producers and veterinarians that fail to utilize information available can not be forced into recognition of better methods.

One of the inalienable rights granted in a democracy is the right to fail. The government be it local, state, or federal should not be used as a guarantee to succeed where personal effort fails.

# PSEUDORABIES TEST FOR NORTH DAKOTA

Dr. Dean Flagg has asked that when Montana pigs are bled for export to North Dakota negative results be shown at 1:2 dilution to comply with North Dakota's laws.

Consequently, all veterinarians bleeding pigs for export to North Dakota, request the lab to return results at 1:2 dilution. Normally our lab tests are run at a highter dilution.

### HUMAN RABIES -- OKLAHOMA

"On September 26, 1979, CDC was notified of a possible case of human rabies occurring in a man from northeastern Oklahoma.

The 24 year old man was well until September 15, when he had onset of insomnia, headache, nausea, vomiting, malaise, myalgia, and fever (101 F). Two days later, when symptoms persisted and tremulousness, intermittent confusion, and hallucinations began, he was hospitalized. He became hyperactive, hyperresponsive to environmental stimuli, and diaphoretic, and developed a left seventh cranial nerve palsy. Localized and generalized seizures began on the sixth day of his clinical illness. He was intubated and treated with dopamine for hypotension. On September 22, he was transferred to another hospital. Cerebrospinal fluid (CSF) specimens obtained on September 23 contained 34 lymphocytes and 1 monocyte/mm, <sup>3</sup> a protein level of 176 mg/dl, and a glucose level of 133 mg/dl. The patient became obtunded on September 22 and progressively comatose over the next 4 days. An electroencephalogram revealed diffuse, slow, non-focal dyshrythmia. Serum rabies virus neutralizing antibody titers were 1:12, 1:10, and 1:42 on September 22, September 23, and September 28,

respectively. CSF antibody titers were less than 1:5. The patient's condition continued to deteriorate, despite intensive support, and he died on October 4. A postmortem brain biopsy contained fluorescing rabies antiqen.

The patient's occupation as a woodcutter and his activities before his illness provided the potential for exposure to rabid wild or domestic animals. Thus far, however, no such contact has been documented. Friends and family contacts of the patient and employees of the 2 hospitals at which he was treated are being investigated to determine the degree of their exposure to the patient. As of October 5, 18 family/friend contacts and 34 hospital employees have been identified as having a possibly significant exposure. These persons are beginning a course of postexposure prophylaxis.

Reported by L Kerton, RN, S Schwartz, MD, Tulsa, Okalhoma; EM Cleaver, MD, FA Reynolds, MD, Tulsa City County Health Dept; J Grim, RN, MA Roberts, MPH, Acting State Epidemiologist, M Ward, MD, Okalhoma State Dept of Health; Field Services Div, Viral Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: The patient's clinical course, the rising neutralizing antibody titers in the absence of any antirables therapy, and the presence of rables virus in the brain, identified by fluorescence, provide strong evidence to support a diagnosis of rables. Although a corneal impression fluorescently stained for rables virus antigen was strongly positive, CDC is not currently using this as a diagnostic test because of several false-positive tests in human non-rables cases. The corneal impression test appears to be a very reliable diagnostic test in animal models (1) and is sometimes positive in man (2,3), but its diagnostic capabilities have not been fully evaluated in human rables.

If a likely exposure to rabies is not found, this man will be the fourth of 8 cases of human rabies reported to CDC since January 1978 in which no source of rabies was discovered. The most probable explanation for this was the inability of the patients to communicate at the time rabies was entertained as a diagnosis. Thus, rabies should be considered as a possible cause of encephalopathic illness of undetermined etiology, despite a negative contact history.

With the exception of a corneal transplant recipient (4), no human-to-human transmission of rabies has been documented. However, because of the theoretical possibility of human-to-human transmission in limited circumstances, CDC currently recommends treating contacts of human rabies cases who have possible risk exposure. Risk exposure is considered to be the contamination of open wounds or mucous membranes with saliva or other potentially infectious materials such as neural tissue, autopsy tissue, or spinal fluid. Although any risk of acquiring rabies under these circumstances is unlikely, CDC recommends post-exposure prophylaxis for contacts with these exposures."

## References:

- Larghi CP, Gonzalez L, Held JR: Evaluation of the corneal test as a laboratory method for rabies diagnosis. Appl Microbiol 25:187-189, 1973
- Cifuentes E, Calderon E, Bijlengn G: Rabies in a child diagnosed by a new intravitam method-the corneal test. J Trop Med Hyg 74:23-25, 1971

- Kock FJ, Sagartz JW, Davidson DE, Lawhaswasdi K: Diagnosis of human rabies by the cornea test. Am J Clin Pathol 63:509-515, 1975
- 4. MMWR 28:109-111, 1979

SOURCE: Morbidity And Mortality Weekly Report, October 12, 1979, Vol 28, No. 40

# RABIES IN PET SKUNKS -- OREGON

"The Oregon Department of Human Resources recently reported laboratory-confirmed rabies in 2 pet skunks among approximately 161 shipped to the state in June and July of this year from a Minnesota animal dealer. The dealer's operation is licensed and inspected by the U.S. Department of Agriculture (USDA), and all distributed skunks were reported as being pen-bred.

The 2 positive skunks were among a shipment of 30 received at a north Portland, Oregon, pet store on June 28. The first infected animal was purchased on July 21 by a Washington resident. It had onset of illness on July 29. Four persons were exposed and underwent anti-rabies prophylaxis.

The second skunk had been purchased from the same pet shop on July 24; onset of illness occurred on September 20. One person underwent anti-rabies treatment for exposure to this animal.

Both animals exhibited irritability and aggressive behavior during their illnesses. One animal had a voracious appetite until near death. Neither animal had been vaccinated against rabies, nor had either been in direct contact with other domestic or wild animals since arriving in Oregon.

The Oregon Department of Human Resources found that skunks from the animal dealer had been sent to 3 pet shops in the metropolitan Portland area and 6 additional locations throughout the state of Oregon. A list of persons who had purchased skunks was obtained from the involved pet shops. Several skunks had been bought by Washington residents, although the ownership of pet skunks has been illegal in that state since 1971. Local and state health officials contacted and apprised all identified owners of the risk.

Since the first skunk was reported positive, state laboratories have examined approximately 100 other pet skunks - approximately 75 from the Minnesota animal dealer and the rest from various other sources. None of these was positive for rabies.

Eight persons that had been exposed to skunks that escaped or had died but were not tested for the cause of death elected to undergo anit-rabies treatment.

The Dregon State Department of Agriculture has temporarily banned the importation of skunks as pets. On July 1, 1980, a new state statute banning the sale, distribution, and keeping of skunks becomes effective.

Investigations of the distributor's facilities were undertaken by USDA and University of Minnesota personnel. Records indicate that approximately 3,000 young skunks were distributed to 30 states this year. Although the skunkbreeding operation was considered satisfactory, approximately 40 recently trapped skunks were noted in a separated area of the operation. These animals were to be introduced into the breeding colonies next year as a fresh "bloodline."

Reported by JF Schike, MD, Clackamas County (Oregon) Health Dept; CP Shade, MD, MPH, Multnomah County (Oregon) Health Dept; MT Daly, DVM, MPH, Oregon Dept of Agriculture; LR Foster, MD, MPH, Deputy State Epidemiologist, R Sokolow, BM Thomas, LP Williams, Jr, DVM, DrPH, Public Health Veterinarian, Oregon Dept of Human Resources; JM Taylor, MD, State Epidemiologist, Washington State Dept of Social and Health Services; RA Robinson, MPH, PhD, University of Minnesota; JFlint, DVM, Minnesota Livestock Sanitary Board, St. Paul; AG Dean, MD, State Epidemiologist, Minnesota State Dept of Health; B Ward, DVM, USDA, St. Paul; Respiratory and Special Pathogens Br, Viral Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: An increasing number of cases of rabies in wild pets, especially skunks, are being reported to CDC. In 1977, Oklahoma reported that 3 pet skunks from different areas of the state were found positive in a 5-week period. At least 50 persons were exposed to the infected animals. An additional 29 persons were exposed to another rabid pet skunk in Oklahoma in June 1978. Montana reported that in late summer 1977 a rabid pet skunk exposed 10 persons. An incident in Indiana during July 1978, in which 26 persons were exposed to a rabid pet skunk, and another similar incident in Arizona in August 1978, in which 23 persons were exposed, emphasize the proolem of keeping wild animals as pets (1).

CDC strongly urges that wild animals not be kept as pets and encourages states to make it unlawful to retain as pets wild animals such as skunks and raccoons, especially those captured from the wild, because they are potential sources of rabies."

### Reference

1. MMWR 27:399-401, 1978

SOURCE: Morbidity and Mortality Weekly Report, October 12, 1979, Vol. 28, No. 40

# DIAGNOSTIC LABORATORY NEWS by Dr. William J. Quinn, Chief, Diagnostic Laboratory Bureau

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AVIAN	11	5	120%
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MISC.	18	21	-14%
TOTAL	311	191	63%

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  - 3. Slaughter samples -- 8,514 sera, 126 positive
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- C. Brucella Ring Test Cream -- 136 samples
- D. Leptospirosis (all species) -- 74 sera 1. L. pomona -- 2 positive
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- F. Bluetongue -- 348 sera
- G. Anaplasmosis -- 214 sera, 4 positive
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- BVD -- 29 sera,
- J. PI<sub>2</sub> -- 7 sera, 3 positive
- K. WEE and EEE -- 12 sera, 7 positive for WEE
- L. Pseudorabies total sera -- 113
  - 1. Routine tests -- 57 sera
  - 2. Slaughter-samples -- 56 sera
- M. BLV -- 6 sera

### III. Rabies

- A. 101 requests
  - Human exposure
     a. 17 negative
  - 2. No human exposure
    - a. 7 positive (6 bats, 1 skunk) b. 77 negative
  - Counties with rabies

Cascade (3), Missoula (1), Carbon (1), Powell (1) Liberty (1)

IV. Bacteriology

A. 121 accessions processed resulting in 120 isolates

1. Antibiotic sensitivities were run on 101 isolates

- Cl. chauvoei (1) and Cl. novyi (1) were identified by fluorescent antibody tests.
- B. 4 sets of tissues representing 4 herds were cultured for Brucella
- V. Virus isolation attempts -- 5 cases (3 Bovine, 2 Porcine) 1 Bovine positive BVD

Jan A. Bergeron, V.M.D., was recently hired for the veterinary pathologist's position in the Diagnostic Laboratory. He began work on October 9, 1979. He has a wide background of experience both in private practice and in academic areas. This appointment begins to correct the staff shortages at the laboratory and will help to insure prompt service on requests. The remaining staff position will be filled as soon as a qualified applicant can be hired.

A request was received from a Billings veterinarian to drop the use of Chloromycetin in the antibiotic sensitivity assays on bacteria isolated from food-producing animals. I'm opposed to dropping the antibiotic, but solicit your input on the matter. I also would appreciate hearing your ideas about additional antibiotics to use in the sensitivity tests. It is input from the people who use the services which helps to determine the services being offered.

\$ 636.05 Liom oct, 1929

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STATE VETERINARIAN



STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
Animal Health Division
Helena, Montana 59601

# MONTHLY LETTER

# OCTOBER 1979

# PREGNANCY TEST IDENTIFICATION

Dr. Zancanella advises me that this year the pregnancy test eartag color code is green, and all practitioners are asked to use the green eartag for identification when preg testing. Early calvers are left ear and late calvers are right ear.

# BRUCELLA ABORTUS VACCINE DOSAGE

There seems to be some confusion arising concerning the studies presently being made by USDA and USAHA related to the reduction of live cell counts in a dose of Brucella vaccine.

At present, studies are underway in which immunization to challenge have been attempted at dilutions including 1/10000 of current dosage. It appears that protection was gained even at this lowest dosage.

Until the experiments are concluded and the Biologics Division gives its permission, the present live cell count in Brucella vaccine will remain the same.

It is hoped by many, that this permission may be granted about January 1, 1980. Until then the present package direction dose is the official dose required by the UM & R

# VACCINE-INDUCED RABIES IN A PET SKUNK

A striped skunk (Mephitis mephitis) less than 4 months old was found along a New Jersey highway in mid-July 1978 and was taken home by a local family. On August 25, the family brought the skunk to a local veterinarian for descenting. Immediately after surgery, the skunk was vaccinated intramuscularly with 1 ml of a modified live-virus rabies vaccine (canine cell line origin, high egg passage (HEP), Flury strain).

On September 22, the skunk was atactic; this condition progressed over the next 4 days to a state of total collapse. On September 26 (32 days after rabies vaccination), the skunk was euthanatized. It was subsequently sent to the Rabies Laboratory, New York State Department of Health, and diagnosed rabid by the rabies fluorescent antibody test.

As a result of the rabies diagnosis, five people were treated with rabies immune globulin and rabies vaccine.

Mouse inoculation test results pointed to the vaccine as the source of infection, because of the differing effects on weanling and suckling mice. When tenfold dilutions of 10% suspension of skunk brain tissue in physiologic saline solution were inoculated intracerebrally into 10 to 12-g weanling Nya:NYLAR white mice (5 mice per dilution), rabies virus could not be demonstrated. However, when suckling Nya:NYLAR mice were subsequently inoculated by the same protocol, they all succumbed to rabies. These results were verified by the rabies fluorescent antibody test at all dilutions to  $10^{-5}$  and were duplicated by the Rabies Investigational Unit, Center for Disease Control, Atlanta, Ga.

The HEP-Flury strain is the only rabies virus known to have a biologic marker. Koprowski<sup>2</sup> found that intracerebral inoculation of a 20% suspension of rabies-infected chicken embryo, representing the 182nd and subsequent egg passages, failed to kill 28- to 35-day-old mice but did kill suckling mice. Thus, our results indicated that the skunk had succumbed to a HEP virus strain.

Two important cautions are emphasized by this incident:

- No vaccine is licensed for use in wild animals. Administration of a livevirus vaccine should definitely be discouraged.
- It is not advisable to vaccinate any animal with a live-virus rabies vaccine while the animal is under stress of trauma or surgery or undergoing corticosteroid therapy. It is speculative as to whether a HEP vaccine would have infected this skunk with rabies had it not been stressed by the descenting procedure.

John G. Debbie, D.V.M., New York State Department of Health, Albany, NY 12201.

- Dean DJ, Abelseth MK: The fluorescent antibody test, in Kaplan M, Koprowski H (ed): Laboratory Techniques, ed3. Unisante, Geneva, WHO Monograph Series No. 23, 1973 pp 73-84
- Koproswki H: Biological modification of rabies virus as a result of its adaptation to chicks and developing chick embryos. Bull WHO 10: 709-724, 1954

Source: JAVMA, Vol 175, No. 4 August 15, 1979

# BRUCELLA ABORTUS INFECTION IN CALVES

Brucella abortus has been found in the lymph nodes of calves that did not nurse their dams (Shroeder, 1922). Also, of 22 heifers born from infected cows and immediately separated and kept isolated from all other animals, 4 shed Brucella abortus when they calve (Plommet, et al, 1973). The importance if in utero transmission and infection of young cattle that does not become evident until puberty or calving has been unknown. Studies are presently in progress at Auburn University to define the role of calves born to infected dams in the transmission of brucellosis. However, a study from England (J. W. Wilesmith, The Veterinary Record, August 19, 1978) sheds some light on the subject.

In 46 infected herds in which only the adult cattle were slaughtered as a method of eradication, 11 herds became infected when repopulated. In 10 of the 11 herds, the source of reinfection was possibly reprieved heifers. Seven out of 11 initial reactors in these 10 herds were known to be offspring of reactor dams, one was born of a serologically negative dam, and the other three were from dams that could not be identified. Of these 11 reactors, 6 could have acquired infection at any time up to and including puberty, but in 5 cases infection could have only been acquired in utero or in early calfhood. Based on this information, the number of heifers retained for breeding, and some assumptions, it was estimated that there is a risk of 2.52% of heifer calves born to serologically positive dams reacting in early adulthood. This constitutes a significant risk in the reestablishment of brucellosis-free herds. Also, retention of calves from infected dams presents a significant risk for perpetuation of brucellosis in an infected herd.

Er. G. W. Meyerholz Veterinary Medicine Reporter University of Florida May 1979

Continuing on with the vein of the above article.

Montana has at least two documented cases of vertical transmission of Brucellosis through heifer calves out of reactor dams. One case is an experimental cow housed at VRL in Bozeman, and the second was a cow owned by a Western Montana producer that had been infected and quarantined and subsequently released after cleanup. This man's practicing veterinarian recognized the heifer as being from a reactor dam and advised that she be separated from the herd at calving. Sure enough, at calving, placenta was retrieved and cultured and Bio type I was grown.

In retrospect a number of other herds in the state that have been quarantined, released, and requarantined could very possibly have been victims of vertical transmission via heigher calves.

This is, in part, some of the reasoning behind the increasing reluctance to release heifer calves from an infected herd even after prescribed UM & R procedures of within 10 days of clean test of the dam.

It is a possibility that consideration should be given to advising an owner of an infected herd that heifer calves not be maintained for breeding. All heifers should be spayed and thereby help to interrupt the transmission cycle.

After the herd is cleaned up and free of infection and an assurance test made, heifer calves from subsequent calf crops could be maintained as breed stock for the herd.

In the long run this could prove to be less expensive for the owner and allow release from quarantine sooner and eliminate the possibility of selling brucellosis via replacement heifers.

# NOTICE TO ALL MONTANA VETERINARY PRACTIONERS AND OTHER INTERESTED PERSONS

As part of its efforts to evaluate the laboratory needs of Montana's livestock industry, the Livestock Laboratory Review Committee established by Senate Joint

Resolution 32 is asking for your input. The committee is asking for comments either presented at a hearing to be held November 5, 1979, or mailed to them.

Among issues under review are the questions of whether regulatory, research, and diagnostic services are presently being adequately provided and whether those functions can best be delivered under the supervision of one agency or separated.

In addition to general statements on laboratory organization and services, the committee is seeking:

- 1) To identify problem areas encountered by the veterinary profession related to the laboratories.
- 2) Suggested solution to those problems.
- 3) Statements from laboratory users, or potential users, on their views regarding laboratory reorganization.

The hearing will be held in the library of the Marsh Laboratory building in Bozeman, Montana, at 9:00 a.m. on November 5, 1979.

Written comments not presented at the hearing should be sent to: Livestock Laboratory Review Committee, % Charles Brown, Montana Department of Livestock, Capitol Station, Helena, MT 59601.

This request for comments is in addition to the questionnaire on laboratory usage sent by President Tietz of Montana State University.

# DIAGNOSTIC LABORATORY NEWS - By Dr. William J. Quinn, Chief Diagnostic Laboratory Bureau

I. Accessions reported out in August

	August 1979	August 1978	% change
BOVINE	87	47	85 %
EQUINE	18	35	- 48 %
PORCINE	17	13	30 %
OVINE	10	3	233 %
FELINE	20	37	- 45.9 %
CANINE	53	50	6 %
AVIAN	10	11	- 9 %
WILDLIFE	76	63	20 %
MISC.	31	38	- 18.4 %
TOTAL	322	297	8.4 %

# II. Serology

- A. Brucellosis (all species) total sera -- 16,539
  - 1. Brucellosis routine tests -- 4,858, 267 positive 2. Quarantine herd tests -- 1,870 sera, 20 positive
  - 3. Slaughter samples -- 9,613 sera, 88 positive
- B. Leptospirosis (all species) -- 69 sera
  - L. pomona -- 6 positive
     L. hardjo -- 2 positive
  - 3. L. icterohemorrhagia -- 5 positive
  - 4. L. grippotyphosa -- 1 positive
  - 5. L. autumnalis -- 3 positive
- C. EIA -- 632 sera, 3 positive
- D. Bluetongue -- 190 sera
- E. Anaplasmosis -- 86 sera, 5 positive
- F. IBR -- 45 sera, 19 positive
- G. BVD -- 39 sera, 3 positive
- H. PI3 -- 19 sera, 11 positive
- I. WEE and EEE -- 39 sera, 7 positive for WEE
- J. Pseudorabies total sera -- 94 sera
  - 1. Routine tests -- 14 sera
  - 2. Slaughter -- 80 sera

### III. Rabies

- A. 104 requests
  - Human exposure
  - a. 27 negative2. No human exposure
    - a. 7 positive (bats)
      - b. 70 negative
- B. Counties with positive rabies

Cascade, Mineral, Ravalli, and Yellowstone

# IV. Bacteriology

- A. 122 accessions processed resulting in 320 isolates
  - 1. Salmonella dublin was isolated from a calf
- B. 10 sets of tissues representing 10 herds were cultured for Brucella
  - 1. Brucella abortus, Type I -- 1 isolation
- V. Virus isolation attempts -- 12 cases (6 Bovine, 6 Porcine) | 1 Bovine positive BVD

636.,05 LIO.M Sept, 1979

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# STATE OF MONTANA

DEPARTMENT OF LIVESTOCK ANIMAL HEALIH DIVISION HELENA, MONTANA 59601



# MONTHLY LETTER

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STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
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Helena, Montana 59601

# MONTHLY LETTER

### SEPTEMBER 1979

### Arthur M. Jasmin

Arthur M. Jasmin, 68, Doctor of Veterinary Medicine and former director of the Department of Livestock Diagnostic Laboratory Bureau in Bozeman, died October 20, 1979 in Kissimmee, Florida.

He was born October 1910, the son of Pete and Josephine Jasmin.

He was a graduate of Helena High School and a 1940 graduate of the School of Veterinary Medicine, Washington State College in Pullman, Washington.

Jasmin worked for the U.S.D.A. Bureau of Animal Industry in Beltsville, Maryland from 1940 to 1943. He was then appointed Research Veterinarian to the Livestock Sanitary Board May 26, 1943 at Bozeman.

On March 1, 1948, in Helena, he was appointed bacteriologist and pathologist. He was then appointed Deputy State Veterinarian in charge of poultry disease control April 6, 1961. On June 1, 1963 he was appointed director in charge of the diagnostic laboratory. He resigned that position on June 30, 1966 to take a position with the Florida Department of Agriculture Division of Animal Industry, Bureau of Diagnostic Laboratory in Kissimmee.

Survivors include his wife, Joan of Kissimmee; three daughters, Paula Drake and Mary Victoria, both of Florida, and Terry Wallace of Missoula; four sons, Robert, David, Michael and Mark, all of Florida; and five grandchildren.

He was preceded in death by his parents and a son, Peter.

# RABIES IN SKUNKS -- ARKANSAS

An outbreak of rabies in skunks is occurring in Arkansas. In the first 4 months of 1979, there were 143 laboratory-confirmed rabid skunks, compared to yearly totals of 99 in 1977, and 144 in 1978. By the end of April 1979, 172 skunk heads had been examined; 143 of these were positive (83.1%). By the end of April 1978, 73 skunk heads had been examined; 48 were positive (65.7%).

The public is being made aware of the outbreak by frequent news articles, broadcast notices, and letters to the Arkansas Veterinary Medical Association and to the state parks and tourism directors. There is the possibility that this increased publicity may be a contributing factor in the increase in skunks being submitted for laboratory testing.

Although Arkansas state law required annual rabies vaccination of all dogs and cats, it is estimated that no more than 50% of the dogs and 20% of the cats in the state are vaccinated. Comparison of those vaccinated for January through

March of 1978 (dogs, 13,158; cats, 3,189) and 1979 (dogs, 20,471; cats, 4,580) reveals a marked increase in vaccinations, however. Dogs and cats, important potential sources of human exposure, are usually infected with rabies as a result of exposure from wildlife.

In addition to the increased incidence of animal rabies, there has been a corresponding increase in reports to the health department of human exposures that required post-exposure rabies treatment. In the first 4 months of 1979, 44 persons required such treatment, whereas only 24 did for the corresponding period of last year.

Reported by TC McChesney, D.V.M., Arkansas State Department of Health; Respiratory and Special Pathogens Br, Viral Diseases Div., Bureau of Epidemiology, CDC.

Editoral Note: Although the total incidence of animal rabies is greater in Texas, when area difference is considered, Arkansas has the highest incidence of animal rabies in the United States this year. Oklahoma and Missouri are also showing considerable increases.

Wildlife management officials and biologists postulate that the increased rate is due to an increase in the skunk population this year. This increase may be due to the prohibition on fox hunting and trapping in effect for the last few years. The fox and skunk share a similar habitat. When foxes were trapped, many skunks were inadvertently caught, thus controlling the skunk population. In subsequent years, if historic patterns continue, there should be a decrease in skunk populations--because of diseases, food shortages, and competition for denning sites, among other factors--with, hopefully, a proportional decrease in skunk rables.

Source: Morbidity and Mortality Weekly Report, June 22, 1979, Vol. 28, No. 24

### BUBONIC PLAGUE

Another alert to veterinarians concerns the presence of plague in small rodents and animals in Montana. The Indian Health Service initiated a survey that was concurrent with their rabies immunization programs this spring and summer to check for evidence of plaque titers in dogs.

CDC Laboratory at Ft. Collins, Colorado reports that positive titers were demonstrated on samples submitted from the Blackfeet, Crow, Rocky Boy's, and Fort Belknap Reservations in Montana.

The main caution here is care in handling dead animals, especially rodents, when skinning, etc.

# EQUINE VIRAL ENCEPHALITIDES

Again this year Equine Encephalomyelitis has made itself evident especially in Western Montana,

So far there have been 9 cases confirmed by laboratory methods plus a number of reported clinical cases.

Horse owners should be advised of the dangers involved in concentrations of horses and immunization should be stressed, granted, we are approaching the end of the vector season.

Veterinarians are reminded that the equine encephalomyelitides are a reportable disease, and that notification of this office should be made when a clinical diagnosis is made as well as when laboratory confirmed cases are demonstrated.

This office works closely with the Department of Health & Environmental Sciences, Preventive Health Services Bureau on the surveillance of these public health hazard diseases.

### TUI AREMIA

Practitioners should be alert for the presence of Tularemia (<u>Francisella tularemsis</u>) in the area of the Crow Reservation in southern Montana. The <u>Public Health Service has notified cooperating agencies that several clinical cases with illness and antibody titers consistent with this disease have been identified.</u>

Care should be taken when treating or necropsying animals that could be affected.

# DIAGNOSTIC LABORATORY NEWS by William J. Quinn, D.V.M. Chief, Diagnostic Laboratory Bureau

I. Accessions reported out in July 1979

	July 1979	July 1978	% change
BOVINE	48	32	50.0%
EQUINE	17	22	-22.7%
PORCINE	8	8	
OVINE	3	4	-25.0%
FELINE	7	8	-12.5%
CANINE	30	27	11.1%
AVIAN	5	9	-44.4%
WILDLIFE	40	43	-6.9%
MISC.	16	13	23.0%
TOTAL	174	166	4.8%

# II. Serology

- A. Brucellosis (all species) total sera -- 15,045
  - 1. Brucellosis routine tests -- 5,027 sera, 76 positive
  - Quarantine herd test -- 255 sera, 1 positive
  - 3. Slaughter samples -- 9,763 sera, 65 positive
- B. Leptospirosis (all species) -- 71 sera
  - 1. L. pomona -- 3 positive

- 2. L. hardjo -- 2 positive
- 3. L. icterohemorrhagia -- 11 positive
- 4. L. autumnalis -- 12 positive
- C. EIA -- 355 sera
- D. Bluetonque -- 38 sera, 1 positive
- E. Anaplasmosis -- 28 sera, 5 positive
- F. IBR -- 33 sera, 7 positive
- G. BVD -- 41 sera, 2 positive
- H. PI<sub>3</sub> -- 13 sera, 4 positive
- I. WEE and EEE -- 7 sera
- J. Pseudorabies total sera -- 109
  - 1. Routine tests -- 17 sera
  - 2. Slaughter samples -- 92 sera, 7 positive

# III. Rabies

- A. 42 requests
  - 1. Human exposure
    - a. 15 negative
  - 2. No human exposure
    - a. 2 positive (bats)
    - b. 26 negative
- B. Counties with positive rabies Ravalli and Fallon

# IV. Bacteriology

- A. 86 accessions processed resulting in 169 isolates.
  - 1. Salmonella dublin was isolated from a calf
  - Salmonella sp. (presently be typed by NVSL in Ames, Iowa) isolated from a turkey
- B. 32 sets of tissues representing 18 herds were cultured for Brucella
  - 1. Brucella abortus, Type  $\underline{I}$  -- 8 isolations
- C. 3 milk samples were cultured for Brucella
  - 1. Brucella abortus Type I -- 1 isolation
- V. Virus isolation attempts -- 13 cases (9 bovine, 4 porcine)
- <u>NOTE</u>: All serology requests, all species, should be submitted with a SV-2A form <u>not</u> a SV-43.

### EOUINE RESPIRATORY DISEASES

Dr. Donald L. Buelke of Victor has written to this Department expressing his concern over the periodic epizootics of respiratory diseases in horse populations of the state.

It would be of interest and possible use to survey practioners of the state that do a significant amount of equine practice, as to the incidence of respiratory problems, viral and bacterial, severity, laboratory confirmations, etc. as well as levels of immunization practiced within their patient numbers.

Of special concern are the congregations of horses; i.e. rodeos, horse shows, omoksees, ropings, etc., that pool immune, suceptible and diseased horses together to magnify and spread the problems.

I would like practitioners to respond, if they will, to a few questions in order to try and establish the prevalence and severity of these problems in the state.

PLEASE SEND YOUR RESPONSES TO:

BRADFORD F. NEWCOMB, D.V.M. Chief, Disease Control Bureau Department of Livestock Capitol Station Helena, MT 59601

- 1. How many cases of equine respiratory diseases have you seen this year?
  - a. Approximated break down as to etiology.
    - 1. Rhinopneumonitis
    - 2. Influenza 3. Distemper (Strangles)
      - 4. Other
  - b. Do you feel that this complex should be defined through serological survey and epidemiologic investigations?
  - $c_{\circ}$   $\,$  Were any of these cases confirmed by laboratory submissions?
- 2. Were any of these cases the result of local epizootics? Which diseases?
- How many horses (approximately) do you immunize annually against the following:

	a. Rhinopneumonitis b. Influenza c. Distemper (Strangles) d. Other
4.	How many owners object to immunization procedures? For what reasons do they object?
5.	Do you feel that immunization and control of equine respiratory diseases is a client education problem with the practicing veterinarian?
6.	In your practice have you been able to effectively control the spread of equine respiratory diseases within your clientele's animals?
7.	What commonsial vaccines do well
7 *	What commercial vaccines do you use for these diseases?  a. Manufacturer
	b. Your estimate of efficacy.

636,05 Liom \*\* Aug. 1979

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STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
Animal Health Division
Helena, Montana 59601

# MONTHLY LETTER

#### AUGUST 1979

### TWO SUSPECTED CASES OF HUMAN RABIES -- TEXAS, WASHINGTON

Two unrelated cases of suspected rabies have recently been reported to CDC. As of June 26, both patients are comatose and receiving supportive care.

CASE 1. An 8-year-old boy from Piedras Negras, Mexico, was exposed to, but not bitten by, an ill dog on April 20, 1979, and then was bitten on his right hand on May 11 by another dog in Piedras Negras; that dog later disappeared. The boy was healthy until the end of May, when he developed pain in his right shoulder. Several days later the pain worsened, and he developed a sore throat, fever, and dysphagia and was treated with an antibiotic for possible streptococcal pharyngitis by a physician in Piedras Negras. Over the next few days the fever, pain, and sore throat persisted, and he had intermittent episodes of confusion with hallucinations. On June 5 he became acutely agitated, combative, and more confused, developed paralysis of his right arm and generalized weakness, and was hospitalized in Piedras Negras. Two days later the family transferred him to a hospital in San Antonio, Texas. There he was confused, agitated, and aphasic with a right hemiparesis. Over the next few days he became comatose, required intubation and artificial respiration, and developed generalized paralysis. Cerebral angiography, computerized axial tomography and cerbral spinal fluid (CSF) studies performed on June 8 were normal. On June 9, because rabies was suspected, he was given human rabies immune globulin (HRIG) and was started on daily doses of duck embryo vaccine (DEV). On June 11 and June 15, corneal impression, serum, CSF, and neck biopsy specimens were obtained for rabies testing. The first set of specimens was negative except for the serum, which had a rabies antibody titer of 1:7. The corneal impressions collected on June 15 were positive by fluorescent antibody (FA) staining, and the serum had a rabies antibody titer of 1:145. CSF tests for rabies antibody and neck biopsy specimens for virus were negative. Thirty-one contacts of the patient were started on rabies postexposure prophylaxis.

CASE 2. An 18-year-old male from Vancouver, Washington, developed a stiff neck, headache, myalgia, and fever of 101 F (38.3C) on June 8, 1979. The next day he was seen at a local hospital emergency room and treated for possible influenza as an outpatient. Over the next few days he bacame confused and irritable and was seen and admitted to a hospital in Vancouver. That evening he was transferred to another hospital, where he was noted to have a right hemiparesis; computerized axial tomorgraphy revealed temporal lobe edema. Two days later, because herpes simplex was suspected, he had a temporal lobe biopsy. The following day an FA test of the biopsy material was read as positive for rables. The patient subsequently has become progressively obtunded, required intubation, and developed quadraplegia. Examination of CSF obtained on June 12 revealed 200 lymphocytes, 30 red cells, a protein level of 70 mg/dl, and a glucose level of 84 mg/dl. CSF, serum, corneal impression specimens, and skin tissue biopsy specimens from the neck were obtained on June 15 for diagnostic tests for rabies. The corneal impression test was positive for rabies by FA; CSF, serum, and the neck biopsy specimens were negative. Seventeen contacts of the patient have been started on postexposure prophylaxis.

Reported by FA Guerra, MD, J Seals, MD, San Antonio, Texas; E Blizard, MD, R Fisher, MD, R Kim, MD, Vancouver, Washington; RF Bell, San Antonio Metropolitan Health District, San Antonio, Texas; CR Webb, Jr, MD, State Epidemiologist, Texas State Department of Health; V Ashby, F Christman, J Taylor, MD, State Epidemiologist, Washington State Department of Social and Health Services; Viral Zoonosis Br, Virology Div, Bur of Laboratories, Respiratory and Special Pathogens Br, Viral Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: The presumptive diagnosis in both cases is based in part on a corneal impression test. Animal studies and other studies in humans indicate it is a specific test but positive in only about 50% of documented cases (1,2). In the first case described here, the diagnosis is further supported by a rabies antibody titer higher than would be expected 7 days after HRIG had been given and DEV initiated. In the second case the diagnosis is also based on a brain biopsy, read as positive for rabies by FA. In both cases, the diagnosis must be confirmed by further studies, such as virus isolation from saliva, FA staining of neck biopsy specimens or brain tissue, or demonstration of high rabies antibody titers in CSF or serum.

In the first case, the patient was bitten by a dog and also lives in an area currently having an epizootic of canine rabies (3). In the Washington case, however, no definite exposure history could be identified, and the region from which the patient comes has little documented rabies. In the past 5 years, no animals have been documented to be rabid in the patient's county of residence; the only animals documented to be rabid in the surrounding counties have been bats. The second case, coupled with 3 other recent cases (4,5), again highlights the need to consider rabies in a diagnosis of progressive severe encephalitis.

#### References

1. Kock F J, Sagartz J W, Davidson D E, Lawhaswasde K: Diagnosis of human rabies by the cornea test. Am J Clin Pathol 63:5409-515, 1975.

Source: Morbidity and Mortality Weekly Report, June 29, 1979, Vol. 28, No. 25

#### SURVEY OF MONTANA VETERINARIANS

Veterinarians are apt to be at higher risk of contracting zoonotic diseases than the general populace, because of their occupational contact with sick animals. Montana veterinarians have contributed more cases of human brucellosis, both wild strain and vaccine related, than any other group in recent years. In addition, there are veterinarians who practice within the endemic skunk rabies areas, who either have no anti-rabies immunization, or do not know what their titer of anti-rabies antibodies is. Finally, we could find no studies in the literature which attempted to relate the risk of zoonotic disease to degree of contact or to use of gloves.

A historical and serological survey was carried out by asking for volunteer participants at the annual meeting of the Montana Veterinary Medical Association in West Yellowstone in June, 1978. Each participant completed a questionnaire and submitted to venipuncture for approximately 5 ml. of blood. One hundred one veterinarians, 27 spouses, and 17 other persons (mostly veterinarians from other states) participated. Serological tests have been completed for all diseases planned, except Rabies, Leptospirosis, and Canine distemper.

Of the 101 veterinarians, 76 considered their practice "mixed", 17 claimed a "large animal" practice, 3 claimed a "small animal" practice, and 5 were in

laboratory or disease control work. Of the 101 veterinarians, 69 claimed daily contact with sick animals, 25 claimed frequent contact, and 6 claimed to seldom have contact with sick animals. No person claimed to "rarely" have contact, and one person did not answer the question. BUT, only two persons said they "always" used gloves, 33 used gloves often or frequently, and 61 used gloves seldom or rarely. Five persons did not answer the question.

Of the 27 spouses, 2 claimed daily contact with sick animals, 10 had contact frequently or often, and 11 seldom or rarely had such contact. Four persons did not answer the question. Of the 21 who answered the question on glove usage, 19 seldom or rarely used gloves, 2 used them frequently, and no one used gloves all the time.

#### SURVEY OF MONTANA VETERINARIANS LABORATORY RESULTS

AGENT	CRITERIA	VETERIN.	SPOUSE	OTHER
Brucella	1:20	69/101	5/27	11/17
Tularemia	1:20	3	0	0
Western Enc.	1:8	1	0	0
Eastern Enc.	1:8	0	0	0
St. Louis Enc.	1:8	4	0	1
Calif. Enc.	1:8	1	0	0 .
Col. Tick	1:8	0	0	0
R. Mt. Spot. F.	1:8	2	0	0 -
Endem. Typhus	1:8	1	0	0
Q-Fever	1:8	11	0	5
Psittacosis	1:8	49	12	6
Swine Influenza	1:20	43	13	4

### DES BANNED

The Food & Drug Administration announced June 29, 1979 that it will ban diethylstilbestrol (DES) as a growth promoter in cattle and sheep.

DES has been shown to cause cancer in both animals and people. It is a synthetic hormone that has been used since the 1950's to make animals grow faster.

The drug is also used to treat certain cancers and other medical conditions in people. Today's action does not affect the uses of DES as a human drug.

Incongruous isn't it!

#### ANNUAL SPRING CONFERENCE FOR VETERINARIANS

Dr. R. L. Ott, Washington State University, has requested that the following information be related to Montana veterinarians:

March 20-22, 1980. Annual Spring Conference for Veterinarians, Washington State University. Contact Barbara Robbins, College of Veterinary Medicine, Office of Student Services, 130 Veterinary Science, Pullman, Washington 99164, (509) 335-1531.

#### USAHA BRUCELLOSIS COMMITTEE MEETING

In early July this editor attended a meeting of the U.S. Animal Health Association Brucellosis Committee in Chicago. The topic of discussion, at this gathering of industry leaders, state and federal veterinarians, and private practitioners, was the impending changes recommended by the USAHA in the Uniform Methods & Rules for brucellosis eradication.

After meeting last fall in Buffalo, New York, the USAHA had recommended further study on several points and a modification of some of these points in order to make the changes in the UM & R more palatable to the various states and the livestock producers,

The agenda included:

- 1. Update in areas of concern in national brucellosis eradication program.
- Review and evaluation of adult vaccination and whole herd vaccinations and movement of adult vaccinate (AV) branded cattle.
- 3. Report on reduced dosage of Strain 19 vaccine in eligible cattle.
- 4. Evaluation of complement fixation test methods.
- Report on progress of implementation of the committee's recommendations on motions and resolutions by the USDA, APHIS.

The most important item, as far as Montana is concerned, is the report dealing with the reduced dosage of Strain 19 vaccine used when vaccinating heifer calves. The gist of the report indicates that a drastic reduction in dosage (live cell count in reconstituted vaccine) can be accomplished and immunity will still be gained. In the process, the vaccinal titer interference with the present test procedure is virtually eliminated. It is high time that the USDA, APHIS adopt this reduced dosage.

One of the next most important items, in relation to Montana's program, is the evaluation of the complement fixation (CF)test methods. Here again, this is an effort to distinguish between vaccinal and field strain titers and the CF test coupled with the Rivanol test allows considerable progress to be made in this direction. A report on an automated CF test unit was made and the machine was highly recommended as to accuracy, speed, and other reliabilities.

In the section of the meeting dealing with the implementation of the changes in the UM & R, discussion became bogged down and relations between the various states and APHIS became markedly strained. The Brucellosis Technical Commission (the group that studied and dissected the Brucellosis Eradication Program) had recommended that each state implement a dealer licensing law in order to control indiscriminate movement of infected cattle. At the same time they recommended adopting a requirement for a nonduplicative individual identification of all test eligible animals.

Both of these recommendations were tabled for further study by the brucellosis committee at Buffalo, New York to be studied and reported on at the Chicago meeting. Some place "twixt the cup and the lip", APHIS decided that a dealer licensing law with requirements involving dealer record keeping predicated on individual identification would be a requirment of the UM & R. Objections raised by several states were to no avail, Dr. Paul Becton of APHIS informed the members that, "Yes, your inability to implement a dealer licensing law could cause the loss of state-wide brucellosis status."

In the case of North Dakota, Dr. Dean Flagg, North Dakota State Veterinarian, questioned the logic of this since North Dakota has been certified and free of infection for two years, but would revert to a Class "B" status (somewhat analagous to modified-certified) due to their lack of a dealer licensing law. Dr. Becton, in essence, said "Tough!".

It became quite evident that USDA is so eager to raise 5 or 6 southern states in brucellosis status, that they seem to ignore entirely the fact that most western states have extended a great many years effort and too much money in achieving their present more advanced status in the brucellosis program.

There will be more discussion and further action on this matter at the USAHA meeting in October, but the USDA doesn't feel it can allow more time before implementation of the new changes in the UM & R are made.

This program has to be practical or it will lose what support it now enjoys. Many of the federal proposals of the past have not been particularly practical.

# DIAGNOSTIC LABORATORY NEWS by William J. Quinn, D.V.M. Chief, Diagnostic Laboratory Bureau

# A. Highlights of fiscal year 1979

#### 1. Accessions - SV 43's

TOTAL

	FY 1978	FY 1979	% change
BOVINE	1614	2210	36.9%
EQUINE	471	429	-8.9%
PORCINE	210	195	-7.1%
OVINE	185	194	-4.9%
FELINE	195	176	-9.7%
CANINE	526	507	-3.6%
AVIAN	81	95	17.3%
WILDLIFE	345	267	-22.6%
MISC.	414	327	-21.0%

8.9%

4400

4041

- 2. Brucellosis (all species) total sera FY 1979 -- 344,194
  - a. Routine tests -- 214,113 sera, 1300 positive
  - b. Quarantined herd tests -- 17,677 sera, 646 positive
  - c. Slaughter samples -- 112,404 sera, 608 positive
- 3. Leptospirosis (all species) -- 5,654 sera
  - a. L. pomona -- 671 positive
  - b. L. hardjo -- 418 positive
  - c. L. icterohemorrhagia -- 34 positive
  - d. L. grippotyphosa -- 59 positive
  - e. L. autumnalis -- 68 positive
  - f. L. canicola -- 1 positive
  - g. L. tarassovi -- 10 positive
- 4. Equine Infectious Anemia --4,284 sera, 14 positive
- 5. Bluetongue -- 5,054 sera, 19 positive
- 6. Anaplasmosis -- 4,513 sera, 115 positive
- 7. IBR -- 1,475 sera, 87 positive
- 8. BVD -- 1,369 sera, 56 positive
- 9. PI<sub>3</sub> -- 693 sera, 103 positive 10. WEE and EEE -- 39 sera, 6 positive (WEE)
- 11. Pseudorabies -- total sera 1,424
  - a. Routine tests -- 692 sera, O positive
  - b. Slaughter samples -- 732 sera, 1 positive
- 12. Rabies summary
  - a. 468 requests
    - 1. Human exposure
      - a. 1 positive (skunk)
      - b. 193 negative
    - 2. No human exposure
      - a. 21 positive (skunks and bats)
      - b. 251 negative
  - b. Counties with positive rabies

Silver Bow Lake Sheridan Yellowstone Roosevelt Daniels Lewis & Clark Rosebud Carter Powder River Treasure Park

Wibaux

- 13. Bacteriology summary
  - a. 18,400 initial isolation attempts were made
  - b. 3,000 antibiotic sensitivity patterns were made

- c. 29 Salmonella isolates
  - 1. 17 Sal. dublin
  - 2. 10 Sal. typhimurium
  - 3. 2 Sal. rubislaw
- 14. Virus isolation
  - a. 234 virus isolation attempts were performed -- 184 from bovine species
- 15. Histopathology
  - a. During fiscal year 1979 Drs. Ford and Quinn, with some help from Dr. C. K. Anderson, looked at 5,058 glass slides from various species representing 12,266 tissues.
  - b. The workload in the area of histopathology increased approximately 10% from the previous year.
- 16. Laboratory fees
  - a. During FY 1979 the laboratory generated \$47,710.00 in fees. The bulk of these fees were due to charges for serologic tests on cattle and horses.
- B. Changes in Histopathology
  - The change made in June to drop the descriptive phase of the histopathology report has allowed Dr. Ford to eliminate the 'backlog of cases and the delays involved therein,
  - It is anticipated that the microscopic review of tissues should be completed within five working days from receipt of the tissues and usually within three working days.
  - In order to save time on reports dealing with histopathology, submit the tissues fixed in 10% formalin.
- C. Shipment of specimens

It must be emphasized that shipments to the laboratory made on either Friday or Saturday may not be properly handled due to arrival times other than working days. Therefore it is suggested that the specimens  $\underline{\text{NOT}}$  be sent on either day unless there is no danger of autolysis, i.e. fixed tissues, feeds, etc..

D. Position opening

The Montana Veterinary Diagnostic Laboratory presently has an opening for a veterinary pathologist. Plans are to fill the position as soon as possible. Requirements are; a D.V.M. or equivalent degree, at least one year training in pathology and at least one year's clinical experience. Applications are to be forwarded to Cecil C. Greenfield, Administrative Officer, Department of Livestock, Capitol Station, Helena, Montana, 59601.



636.05 Lion \* \* July 1979

# STATE OF MONTANA

DEPARTMENT OF LIVESTOCK
ANIMAL HEALIH DIVISION
HELENA, MONTANA 59601





# MONTHLY LETTER

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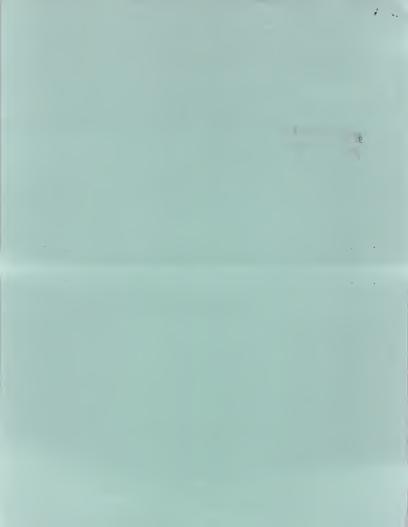
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STATE VETERINARIAN



STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
Animal Health Division
Helena, Montana 59601

#### MONTHLY LETTER

#### JULY 1979

#### SUSPECTED VACCINE-INDUCED FELINE RABIES -- GEORGIA

Two cases of rabies in cats, possibly induced by modified live virus vaccine, have been reported from Ringgold, Georgia. These are the first rabies cases in terrestrial mammals reported in the Ringgold area in over 20 years.

On March 3, 1979, a 10-year-old cat that had been previously vaccinated against rabies in 1970 and 1971 (vaccine-type unknown) was revaccinated at a public clinic in Ringgold with a modified live virus (MLV) vaccine approved for use in dogs, cats, cattle, horses, sheep, and goats. On March 4, 1979, the owners of the cat noticed that the animal was limping slightly on its right rear leg, but the limp was not noticed again until March 19.

The limping was more severe by March 20, and the animal began to drag its ritht rear leg. Examination at a veterinary clinic disclosed that the animal had no pain in the affected leg and only slight pain in the lower lumbar region. The animal had a temperature of 40C, was alert, and ate and drank well.

By March 25, both hind legs and the tail were showing rigid paralysis. Ascending paralysis continued, and by March 27 extensor paralysis was present in all legs. The animal was humanelly killed at the Small Animal Clinic, School of Veterinary Medicine, University of Georgia, Athens, Georgia, on March 27. Rabies virus was found in the brain tissue by fluorescent antibody (FA) examination and mouse inoculation tests at the Georgia Department of Human Resources (OHR) and CDC laboratories.

On May 4, the veterinarian who had vaccinated this cat observed another cat brought to his clinic because of a similar illness on May 1. The veterinarian had inoculated this cat on August 23, 1978, and again on April 17, 1979, with the same type of MLV vaccine used in the first animal. This second cat was also referred to the School of Veterinary Nedicine, University of Georgia, where the illness progressed as in the previous cat and the animal was humanely killed on May 15. Rabies virus was identified in the brain tissue by FA examination at the Georgia DHR and CDC Laboratories.

Ten persons underwent antirabies treatment because of exposure to the first cat. Two persons were reported to have been scratched by the second cat, but no postexposure antirabies treatment was given.

Reported by R.K. Sikes, D.V.M., State Public Health Veterinarian, and the Virus Laboratory, Georgia Department of Human Resources; J. Esh, D.V.M., School of Veterinary Medicine, University of Georgia, Athens; Respiratory and Special Pathogens Br, Viral Diseases Division, Bureau of Epidemiology, CDC.

Editorial Note: Cases of suspected vaccine-induced rabies have been reported recently in dogs, primarily from use of low-egg-passage, chick-embryo-origin (CEO-MLV) rabies vaccine (1). Although cases of rabies have been reported in cats from use of MLV vaccines not approved for cats, these are the first suspected cases resulting from an MLV vaccine approved for use in this species of animal. Further studies are being done in an attempt to determine if the virus isolates are wild or vaccine strains.

#### References:

1. MMWR 27:224-225, 1978

Source: "Morbidity & Mortality Weekly Report", June 15, 1979/Vol. 28/No. 23

#### NEURAL TYPE RHINOPNEUMONITIS

The following is an excerpt from a memorandum received from Dean A. Price, Acting Regional Director, USDA, APHIS:

"British Ministry of Agriculture officials confirmed an outbreak of a neural type rhinopneumonitis at New Market, England, June 6, 1979. Three mares have died as a result of the disease — all from an identified stud. France and Ireland reported this disease several years ago, but the United Kingdom has not previously found a clinical form of this disease. They are seriously concerned about this disease and stated that it is highly infectious and potentially could be more of a problem than contagious equine metritis.

A warning has been issued by the British Thoroughbred Breeders Association/Equine Research Station Infectious Disease Committee which reads as follows:

"Due to the highly infectious nature of the strain of rhinopneumonitis (virus abortion) which has affected mares on the Wooten Stud (three of which have died and two of which have been destroyed), it has now spread to two private studs in the area as a result of contact. We must urgently emphasize that mares and foals within the New Market area should not be moved away from the studs until further notice.

Any movements of mares for the purposes of covering should take place only after searching investigations of possible contact with the disease on each of the stud consignees and in consultation with the veterinary and managerial people responsible. Stud owners and managers in the New Market area must accept the responsibility of informing owners of those mares which have now left the district that the risk of indirect contact exists and that veterinary advice should be sought as soon as possible."

The disease in the United States is generally considered to be a highly contagious mild disease of the respiratory tract of young horses and in pregnant mares is asymptomatic except for abortions. The causative agent is presently classified in the herpes virus group and there are three serological types: (1) Kentucky; (2) England; and (3) Japan. There are inclusion bodies which are diagnostic of the disease in aborted fetuses, but which have not been recorded in adult

This is brought to your attention since it may be a change in the usual characterizations of rhinopneumonitis as we usually think of them.

Please notify cooperating State and diagnostic laboratory officials."

# NOTIFICATION - CHANGE-OF-ADDRESS

Recently, we have had mail returned indicating a change of address and not forwardable.

Please notify the Helena office when you have a change of address.



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June 1979

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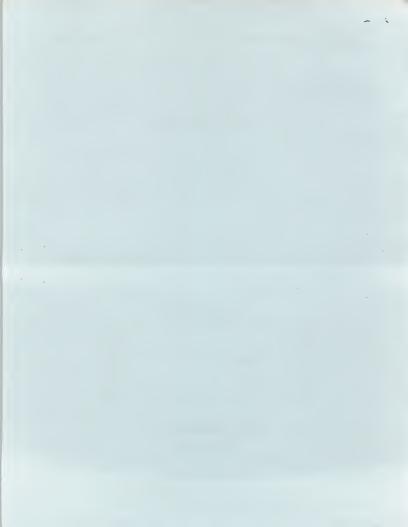
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# STATE OF MONTANA DEPARTMENT OF LIVESTOCK Animal Health Division Helena, Montana 59601

#### MONTHLY LETTER

#### JUNE 1979

#### CURRENT STATUS OF PLAGUE ACTIVITY IN MONTANA - APRIL 1979

bv

Kenneth L'. Quickenden, Ph.D., R.S., Vector Control Section Supervisor, Food & Consumer Safety Bureau, Department of Health & Environmental Sciences

"Plaque has again surfaced in wildlife in Montana. Recently the media carried a story of a hunter from Oregon who contracted the disease while skinning a rabbit he shot in Wyoming, some 50 miles south of Big Horn County. Similar reports of a college student in Colorado who became ill from the disease after skinning a bobcat, and an Idaho man who died after skinning an animal several years ago have also been reported. This winter and spring, our section has conducted a surveillance project for plaque activity in wild animals in cooperation with the Center for Disease Control (USPHS) and government trappers employed by the U.S. Bureau of Sport Fisheries and Wildlife. According to results recently received, 7 of 54 coyote blood samples were positive for plague. These samples were obtained in Beaverhead County (where 4 of 10 were infected) and in Granite, Powell, and Custer Counties (where 1 of 2 coyotes were infected in each county).

The risk of human plague in Montana is low as shown by the fact that there has never been a recorded case of human plague in the state even though sylvatic (animal) plague was recorded in Garfield, Custer, Big Horn, Gallatin, Madison, Beaverhead, and Ravalli Counties between 1902 - 1950. A similar survey in 1974 and 1975 showed active animal plague in Garfield and Custer Counties. While records have not previously recorded plague in Granite and Powell Counties, large numbers of samples have not been collected. Dr. Allan Barnes of the Public Health Service's Center for Disease Control has indicated that high blood titers of plague in coyote blood indicates that they are recently acquired infections and match similar titers found in adjacent Idaho counties in 1978.

While the risk of man contracting plague is very low, it is higher in carnivores and greater yet in rodents and rabbits in counties in which the disease is known to occur. Infected coyotes are simply put off their feed and develop loose stools while the disease may be fatal in bobcats. Plague may be contracted from carnivores theoretically by two routes - direct contact and flea bites -- direct contact being more important. The following safe occupational health practices have previously been recommended by Dr. Martin Skinner of the Preventive Health Services Bureau for those persons who must handle dead rodents, rabbits, or carnivores. They are based on the overall low risk and the possible modes of transmission.

 Persons should avoid skinning or handling dead animals with bare hands, when <u>any open lesions</u> (scratch, cut, abrasions, hang nails, etc.) are present on the hands. Either don't skin the animals, or use adequate gloves. (this also prevents tularemia).

- Persons handling, dissecting or skinning wild animals should wash their hands with soap and water as soon as is reasonably possible afterwards.
- Persons handling or cutting wild animals should check themselves frequently for fleas, ticks, etc. A complete body check should be performed at least once daily, and more frequent check of arms, etc., for fleas. In mild weather short-sleeved shirts allow a worker to readily detect fleas.
  - N.B. The fleas leaving the dead carnivore may be the carnivor's fleas, which are probably poor transmitters, or a rodent's fleas, which may be less frequent but are more efficient transmitters of plaque.
- 4. The use of various insect repellents will retard or prevent the attachment of fleas, ticks, and other ectoparasites. The repellant should be applied to the hands and forearms (or sleeves), and to the knees, lower legs and ankles (and ciothing) for maximim protection.
- 5. We do recommend that any person whose occupation includes handling dead wild animals report to a physician at the first sign of illness, especially if a fever or swollen lymph gland is present, and tell the physician that: (a) the patient handles wild animals and that (b) there is a risk of plague or tularemma.
- These simple precautions will also aid in preventing tularemia, Rocky Mountain Spotted Fever, and Colorado Tick Fever.

The following common sense precautions should be followed by the public-atlarge.

- 1. Avoid handling wild rodents or rabbits, especially sick or dead ones.
- 2. Avoid camping in areas where rodent burrows are evident.
- 3. Keep free-roaming pets free from fleas.
- Discourage rodents by keeping yards and campsites free of trash, junk and garbage. Store animal feed in rodent-proof locations.
- 5. Use insect repellents as required to prevent flea bites."

## BRUCELLOSIS TEST ON BULLS & QUARANTINED HERD CONTRACTS

It was decided at the May Board of Livestock meeting to notice for hearing a proposal to drop the requirement for brucellosis tests on bulls for change of ownership or import into Montana. Test requirements on bulls in quarantined herds would remain in effect.

Since there is little evidence, epidemiologically, to continue to require this added expense and inconvenience to the livestock industry, recommendation that the requirement be dropped was made.

At the same time a proposal was made to notice for hearing a model contract to be used with an owner of an infected herd that will outline the requirements and responsibilities of both the herd owner and the Department in dealing with and eliminating brucellosis from his herd.

#### EQUINE ENCEPHALOMYELITIS

Spring is here, summer approaches, and the possibilities of a high incidence season of sleeping sickness increases. All practioners should remember that all clinical diagnoses of Equine Encephalomyelitis are to be reported to this office and in turn we notify the public health authorities of outbreaks and possible threats.

When possible, paired sera should be submitted to the Diagnositic Laboratory and history and clinical findings should be correlated.

Since this class of disease is a threat to humans, the Animal Health Division and the Preventive Health Services Bureau of the Department of Health & Environmental Sciences again are cooperating on a state wide sentinel and reporting effort.

Recommendation of vaccination should be made to all clients that own or raise horses.

### NEW CHIEF OF DIAGNOSTIC LABORATORY BUREAU

During the Board of Livestock meeting in Great Falls, May 16 & 17, 1979, Dr. William J. Quinn (ISU '64) was selected as Bureau Chief of the Diagnostic Laboratory Bureau, Animai Health Division.

Dr. Quinn received his D.V.M. from Iowa State University in 1964 and subsequently served an internship in large animal medicine from 1964 to 1965 at the University of Minnesota. Following the internship, he was an instructor in large animal clinics at Minnesota until 1969, at which time he took the appointment at the Diagnostic Laboratory, and in that capacity he has served until now.

Dr. Quinn brings ten valuable years of experience at the laboratory to his present appointment, in which he will be responsible for administrative direction of the laboratory as well as professional duties as a veterinary pathologist.

# NEW STAFF MEMBER IN DISEASE CONTROL BUREAU

Recently, selection of a replacement for the District #1 District Veterinarian was made. Dr. D. Owen James (WSU '62) of Circle was the candidate selected. Dr. James had practiced in Acme, Alberta prior to establishing his own clinic in Circle in 1964. From 1964 until this past month, he had seen predominately large animal practice in his area of Eastern Montana.

I know that Dr. James' clients will miss him but the Animal Health Division will gain a valuable and able colleague and District Veterinarian.

We are looking forward to a new, rewarding, and pleasant association with him.

#### SANITARIAN IN MILK & EGG BUREAU

Mr. Earl Wortman of Miles City has been selected as Sanitarian based in Bozeman to replace Harley DeLange who has retired.

Mr. Wortman has been employed at the Pine Hills School as Dairy Supervisor of the school herd. He has a Bachelor of Science degree in Agriculture and Animal Sciences and will be an asset to the Milk & Egg Bureau.

#### DIAGNOSTIC LABORATORY - SUMMER HOURS

Dr. William J. Quinn has notified this office that summer hours at the Diagnostic Laboratory will be 7.30 a.m. to 4:30 p.m. The telephone will be answered from 7:30 a.m. until 5:00 p.m.

# # # # # # # #

We'll see you all in Miles City, June 24 - 27 for the Montana Veterinary Medical Association Meeting.

#########

5 636.05 L10m \* May 1979

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# MONTHLY LETTER

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STATE VETERINARIAN



STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
Animal Health Division
Helena, Montana 59601

#### MONTHLY LETTER

#### MAY 1979

#### AN INTERESTING STATISTIC

In the April 1979 Newsletter, from the Iowa Division of Animal Industry, there was an article citing the incidence of rabies cases in the state during 1978.

It is interesting, since rabies incidence in cats is down played, that of 147 cases of rabies in that state during 1978, 77 were in skunks, 31 in cattle, 16 in cats, 9 in dogs, 4 horses and the balance in wild species.

From other data it is noted, that nation wide, of rabies cases diagnosed in cats, 67% occur in cats that live in endemic skunk rabies areas.

The observation is made that "cattle & cats, for the most part, are unimmunized for rabies and represent a "spill over" of virus activity into these susceptible species". The nine dogs confirmed as having rabies were all unimmunized animals.

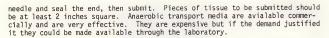
This again supports the recommendation by the veterinary profession that companion animals, cats as well as dogs, be immunized against rabies. The absence of rabies cases in vaccinated animals, particularly dogs, attests to the efficacy of this procedure.

# WYOMING IMPORT PERMITS

Once again, I would like to remind all practicing veterinarians that the state of Wyoming requires an import permit prior to shipment of cattle into that state. This notice has been promulgated in our news letter in prior months but from the number of letters we receive from Wyoming concerning violations of this requirement we would like to again state: OBTAIN A WYOMING IMPORT PERMIT PRIOR TO WRITING HEALTH CERTIFICATES INTO THAT STATE.

# TIPS FROM THE BACTERIOLOGY SECTION OF THE DIAGNOSTIC LABORATORY

- Mastitis For culture work we need at least 10 ml of sample in sterile tubes. These tubes can be supplied from the laboratory. If more than 12 samples are to be submitted, please give two or three days advance notice so media can be prepared.
- Antibiotics Try to provide your secretaries with a list of antibiotics for reference use while discussing results with the laboratory microbiologist. A real problem exists in spelling and relaying information on individual antibiotics.
- Anaerobes Swabs are a very poor specimen choice for anaerobic determination. If you have fluid, please aspirate into a sterile syringe, remove the



4. <u>Enterotoxemia</u> - We prefer at least a 30 cc specimen striped from the gut and submitted in a sterile tube. This eliminates the destruction of the toxin by proteolytic enzems in the gut.

#### TIPS FROM SEROLOGY SECTION OF THE DIAGNOSTIC LABORATORY

When submitting blood samples to the Diagnostic Laboratory for testing, please submit a large enough sample for all the tests you request. Use the 10ml rather than the 5ml size vacutainer type tube or send two tubes. A full tube of the plastic type sent out by the laboratory usually provides enough serum. Only brucellosis tests can be done from the plastic tail bleeders. If you don't have enough serum we can't run the tests and you will get the test charts back marked "insufficient serum". Some of you have glass tubes sent out years ago by the brucellosis laboratory, don't use these tubes, the rubber stopper sticks and we have to break the tube to get the sample out.

During periods of weather extremes, samples sometimes go bad in the mail. If the weather is extremely hot or cold, decant the serum and send it only, rather than whole blood to keep the samples from hemolyzino.

Summer is encephalitis season, two serum samples taken two to three weeks apart are required for <u>diagnostic</u> purposes. Take the first sample as soon as possible after onset and the convalescent sample later. You may hold the acute sample, freeze the serum, and submit when you have both samples. DO NOT FREEZE WHOLE BLOOD. If the animal dies, we will still run the tests but we cannot give you a serologic diagnosis without paired samples.

### EIA REQUIREMENTS IN NORTH DAKOTA

In conversation with Dr. Dean Flagg, he informed me that North Dakota has dropped their requirement for Coggins test for EIA and permits on horses from the four old west states and Minnesota, effective May 1, 1979. In the future, horses traveling to North Dakota from Montana will require only a health certificate.

#### PASSING OF RUSSELL L. COWEN, D.V.M. AND JAY H. NEWHALL, D.V.M.

Word was recently received of the death of Dr. "Rusty" L. Cowen of Billings.

Dr. Cowen graduated in 1936 from Colorado State A & M, Fort Collins, Colorado. He practiced one year in Boulder, Colorado, 2 years in Maxwell, New Mexico, and 4½ years small animal practice in Billings before going to work for the Animal Disease Eradication Division in Billings.

In 1973, he was appointed part-time market inspector for sheep and hogs. Dr. Cowen acted in this capacity until his death in late March.

Dr. Jay Newhall passed away in early January.

Dr. Newhall graduated from Washington State University in 1943. He was State Meat Inspector at Albany, Oregon, and was in dairy practice in Preston, Idaho

prior to setting up a private practice in Belgrade, Montana. In 1964 he sold his practice to Dr. Kirk Seekins.

Since that time, Dr. Newhall was active in ranching and the Ray Foundation.

Our condolences to the families of both these fine men.





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STATE VETERINARIAN



STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
Animal Health Division
Helena, Montana 59601

#### MONTHLY LETTER

#### APRIL 1979

#### NEW MEMBERS APPOINTED TO THE BOARD OF LIVESTOCK

Governor Thomas Judge's office announced the appointment of three members to the Board of Livestock during the months of December and February.

Mrs. Nancy Espy of Boyes, Montana was appointed to the seat formerly held by Fred Johnston of Great Falls. Mrs. Espy is the wife of Mr. Jim Espy, and they ranch near Boyes. Currently president of WIFE (Women Involved in Farm Economics), Mrs. Espy is active in several agricultural and livestock organizations, and community affairs in Southeastern Montana

Mr. Elmer Flynn of Missoula was designated as the Western Montana representative of the Board, where previously Bob Deschamps of Ronan was the appointee. Mr Flynn has ranch holdings in the Missoula area and has served in the State Senate.

Mr. Don Herzog of Rapelje was appointed to fill the unexpired term of Gene Donaldson of Helena, who resigned after election to the State House of Representatives. Mr. Herzog is engaged in farming and hog raising in a family operation, is an active member of Montana Pork Producers, and was designated 1976 Pork All-American

We would like to welcome these three new members to the Department of Livestock and wish them well. They under went a baptism of fire in the March  $2\ \&\ 3$  Board Meeting in Helena.

### IDENTIFICATION OF ANIMALS WHEN SUBMITTING SEROLOGICAL SPECIMENS

It has been the policy of the Department of Livestock for many years to test all bovine blood samples for Brucellosis regardless of the submitting veterinarian's requests for tests.

As a result of this procedure, all test charts are reviewed for their brucellosis status and an increasing number of these charts exhibit incomplete or no identification of animals from which the bloods are collected.

When collecting bloods for submission on diagnostic work ups, identification should be made of the animal in question, ie. 81 series metal ID tags should be placed in the right ear of live bovines of test age. The test charts should be filled out completely showing sex, age, and vaccination status as well as ID number. With that information on the chart, the reviewer can better interpret the laboratory findings.

All veterinarians should review causes of abortions, and consider when submitting specimens from abortion cases that blood should be collecting from the dams and tests run for brucellosis as well as lepto and viral abortifacients.

It seems that many veterinarians are assuming that brucellosis is a disease of State and Federal Veterinarians and has little to do with the cow business in real life. Just this past week a veterinarian in the state was called upon to examine a half dozen aborting cows. He submitted fetal tissue and other tissues, but not bloods until the laboratory requested it for serological studies.

Four of the six demonstrated titers in the reactor class, one suspect and one negative.

Remember please that identification of individual animals is important!! Sometimes especially in a busy calving season it gets to the point that.

"They all look alike to me!"

# BILLING OF CLINICAL PATHOLOGICAL SERVICES

As of April 1, 1979, a cooperative agreement has been signed with the Veterinary Research Laboratory covering clinical pathological services. The VRL will perform clinical pathological services on specimens submitted to the laboratory and the charges for those services will be billed through the Animal Health Divison to the veterinarians requesting those services.

#### VACCINE-INDUCED RABIES

The following was taken from the Michigan Department of Agriculture's Animal Health Monthly Newsletter, dated March 1979.

"Rabies developed in a raccoon 12 days after it had been given live-virus rabies vaccine. On June 12, 1978, the raccoon's head was submitted to the Utah Division of Health for examination for rabies. Fluorescent antibody tests were negative, and mice were inoculated. Sixteen days later, one of the mice died of rabies.

Although one person was exposed to the rabid raccoon, Utah health authorities opted against administering postexposure rabies treatment to the exposed individual because evidence suggests that the vaccine virus which induces rabies in animals is not pathogenic for man. Inability to differentiate in the laboratory between street virus and vaccine virus, however, often forces health authorities to recommend treatment for persons exposed to rabid animals even though the source of infection is presumed to be vaccine-virus.

Rabies vaccine is not licensed for use in wildlife in the United States. However, if wildlife animals must be vaccinated, only inactivated vaccines should be used.

#-US Department of Health, Education, and Welfare, CDC Veterinary Public Health Notes, July 1978."

#### BOVINE NUTRITION SEMINAR FOR VETERINARIANS

An AABP nutrition seminar with separate séssions for dairy and beef veterinary practitioners will be held July 21 and 22, 1979, as a preconvention activity of the American Veterinary Medical Association meeting in Seattle.

Noted dairy scientists that will speak on nutrition and feeding problems are Doctors Neal Jorgensen and James Crowley, University of Wisconsin; Dr. Dave Christenson, University of Saskatchewan, and Dr. Don Bath, University of California - Davis.

Beef nutrition and feeding problems will be covered by Dr. Robert Raleigh, Oregon State University - Squaw Butte; Dr. R. E. Short, U. S. Livestock and Range Research Station, Miles City, Montana; Dr. Dallas Horton, Horton Research Center, Greeley, Colorado; Dr. Richard Bull, University of Idaho, and Dr. Mike Prokop, University of Californa - El Centro.

Card programmable calculators for solving nutrition problems will be discussed by Dan Drake and Ben Norman, University of California Cooperative Extension. A limited, special hands-on session will be offered for those bringing TI-59, HP-67 or HP-97 calculators.

Registration is limited to 125 veterinarians and costs \$125 for the 18-hour, 2-day session. To pre-register, send a check made payable to AABP Regional Nutrition Seminar to Dr Harold Amstutz, Executive Secretary, American Association of Bovine Practitioners, Box 2319, West Lafayette, Indiana 47906. Please include your address and telephone number. Indicate if you are interested in participating in the special TI/HP session.

The seminar is sponsored by Districts X, XI, and XIII of the AABP. Additional information can be obtained for Directors Leon Weaver (X), Lavon Koger (XI), or Ed Shacklady (XIII), or from Dr. Ben B Norman, Seminar Coordinator, Extension Veterinarian, 405 Surge IV Complex, University of California, Davis, CA 95616 - Telephone (916) 752-0853

Source: Ben B Norman, DVM, PH.D. Cooperative Extension University of California

# METHYLENE BLUE - A PROBLEM AND A SOLUTION

The following is an excerpt from FDA, Industry Information Branch, Bureau of Veterinary Medicine:

"Much of the Great Plains area--including Texas, Oklahoma, and Kansas--has been under varying degrees of drought this past year. As a result, large numbers of cattle herds have been affected with intrate poisoning or methemoglobinemia, normally a sporadic seasonal problem. The drought has been so lengthy and extensive that summer pastures were affected, and much of the 1978 hay crop stored dangerously high levels of nitrates. Cattle have been dying from nitrate poisoning throughout the Great Plains area since last summer, and practitioners have discovered the methylene blue, the one agent specific for treatment of methemoglobinemia, is no longer available commercially in ready-to-use form.

In March 1978, FDA published a final order in the Federal Register requiring approved New Animal Drug Applications (NADA's) for animal drugs containing methylene blue for oral administration to dogs and cats. The action was taken because of concerns arising over the safety and efficacy of such products to the treated animal. The new order was addressed only to oral dosage forms for use in dogs and cats. The American Veterinary Medical Association (AVMA) expressed formal concern about the need for emergency use of methylene blue for the treatment of ruminant nitrate poisoning. In response to a comment from AVMA, the Bureau of Veterinary Medicine informed the association by letter that the Federal Register final order pertained solely to the oral use of methylene blue in dogs and cats.

An FDA telephone survey of companies previously producing approved forms of both oral and injectable methylene blue labeled for use in animals revealed that the firms probably would not produce the substance again primarily because of economics and also because of staining problems in the production process.

An extension veterinarian in the drought-affected area tried to help his practitioner-readers by publishing in his newsletter a simple recipe for making injectable methylene blue from the chemical reagent powder. His story included the name, address, and phone number of a chemical company from which the powder could be purchased. However, practitioners experienced some difficulty when they placed orders for the chemical reagent because the company failed to understand FDA's regulations and policy with regard to the use of drugs and chemical substances by veterinarians in daily practice.

The extension veterinarian contacted the Bureau of Veterinariay Medicine to learn what, if anything, could be done about the problem. After considerable discussion among Bureau personnel in a short period of time, the Bureau issued a letter notifying the company that a veterinarian is legally entitled to receive methylene blue (commonly used as a bacteriological stain) and other chemical substances with recognized non-drug uses to use in his practice as he sees fit. A firm may be subject to regulatory action under the Federal Food, Drug, and Cosmetic Act if the firm's written or verbal representations indicate that the chemical reagent could be used for animal drug purposes.

The policy of the Bureau of Veterinary Medicine continues to be that veterinary practitioners may use in private practice any drug or chemical which they can legally obtain, including human prescription legend drugs. There are two methods by which veterinary practitioners may obtain methylene blue. Veterinarians desiring to purchase chemical reagent methylene blue powder should contact chemical supply companies. If the companies express reluctance to ship such a chemical to a veterinarian, the company may contact the Case Guidance Branch (HFV-236), Bureau of Veterinary Medicine, 5600 Fishers Lane, Rockville, MD 20857 for information regarding the Bureau's policy in this matter.

Bulk drug-grade methylene blue powder is also available from another source. Two companies hold FDA approvals to sell human prescription, drug-grade methylene blue in 1-pound quantities: J. T. Baker Chemical Company, 222 Red School Lane, Phillipsburg, NJ 08865 (201-859-2151), \$71.39/pound, will not sell directly to practitions, but will refer inquiries to a drug wholesaler in the area of the practitioner. City Chemical Corporation, 132 W. Z2Nd Street, New York, NY 10011 (212-929-2723), \$32.40/pound, will ship direct to practitioners upon receipt of a check including shipping charges.

Through providing this information to veterinary communicators, the Bureau hopes practitioners will be made aware of the availability of methylene blue."

#### FEDERAL REGISTER NOTICE

This office has received a copy of the Federal Register Notice which EPA published March 15, 1979. This Federal Register Notice proposes an EPA policy for implementation of the pesticide law with respect to veterinarians. Basically this policy gives special exemptions to them. That office seeks comment on this Federal Register Notice by April 30, 1979. Three copies of all comments should be submitted to the Federal Register Section (PS-757) Program Support Division, Office of Pesticide Program, EPA, Room E-401, 401 M Street, SW, Washington, D.C., 20460. Copies of this proposal on EPA policy are included with the Monthly Letter. Please formulate any comments you have, pro or con, and forward them to the above address.

will not be open to the public. As provided by \$209.32 of DOE regulations, IEP requirements and unanticipated procedural delays in processing this notice require the usual 7-day notice period to be shortened.

Issued in Washington, D.C., March 8, 1979.

ROBERT C. GOODWIN, Jr., Assistant General Counsel, International Trade and Emergency Preparedness.

[FR Doc. 79-8041 Filed 3-14-79; 8:45 am]

# [6560-01-M] ENVIRONMENTAL PROTECTION AGENCY

[OPP-00086; FRL 1077-2]

PESTICIDE USE AND PRODUCTION BY VETERINARIANS

Proposed Statement of Policy on the Applicability of the Federal Insecticide, Fungicide, and Rodenticide Act to Veterinarians

AGENCY: Office of Pesticide Programs/Office of Enforcement, Environmental Protection Agency (EPA),
ACTION: Notice of a proposed policy for implementation of the Federal In-

for implementation of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, with respect to veterinarians.

SUMMARY: This notice explains EPA's proposed policy for enforcement of various provisions of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended FIFRA! O'U.S.C. 136 et seq.), and regulations thereunder, with regard to Doctors of Veterinary Medicine [veterinarians] who use, mix, or prescribe pesticides.

DATES AND ADDRESSES: The Administrative Procedure Act [5 U.S.C. 553(b)] provides that the solicitation of comments is not required of federal agencies for "interpretative rules, general statements of policy, or rules of agency organization, procedure or practice." EPA has determined that this notice falls within this exemption. Nevertheless, interested persons may submit written comments regarding the proposed policy set forth. If possible, three copies of all comments should be submitted by April 30, 1979, to the Federal Register Section (TS-757). Program Support Division. Office of Pesticide Program, EPA, Rm. E-401, 401 M Street, S.W., Washington. D.C. 20460.

All comments filed pursuant to this notice will be available for public inspection in the office of the Federal Register Section from 8:30 a.m. to 4:00 p.m., Monday through Friday, EPA will respond to significant relevant comments prior to or at such time as

this policy statement is published in final form in the FEDERAL REGISTER.
FOR FURTHER INFORMATION CONTACT:

Ralph Colleli. (TS-766), Office of Pesticide Programs (202) 755-8030.

SUPPLEMENTARY INFORMATION: FIFRA, as amended, is a comprehensive regulatory statute affecting many phases of pestleide production, distribution, and use, on both national and local levels. EPA has the primary responsibility for enforcing FIFRA and implementing the programs created under the Act. Among these programs are four which may apply to veterinarians who deal with pesticides in the course of their practice: (a) Certification of applicators who use pesticides classified for restricted use by EPA; (b) registration of pesticide products; and (c) registration of pesticide production establishments. Regulations have been written to implement these programs (40 CFR Part 171, 162, and 167, respectively). In addition, regulations under Section 25(c)(3) of FIFRA were promulgated on February 7, 1979 (44 FR 7695), describing special (childproof) packaging requirements for pesticides, applicable to practicing veterinarians under certain circumstances.

Veterinarians who use restricted use pesticides, or who dispense pesticides to their clients, are, to some extent, subject to all these programs. This notice describes EPA's proposed policy for applying these regulations to veterinarians. In general, this policy would allow veterinarians to continue their usual practices without having to comply with all the procedural requirements to which they are legally subject, provided that they comply with certain minimal safety precautions described in this policy These conditions would not extend or augment in any way the legal responsibilities or liabilities of veterinarians. Rather, compliance with these precautions would permit EPA to authorize veterinary practices which may be technically inconsistent with some provisions of FIFRA, but which are wholly consistent with the legislative intent and purposes of the Act.

#### USE OF RESTRICTED USE PESTICIDES

Under Sections 3, 4, and 12 m/2m/2 m of FIFFRA, no individual may use a restricted use pesticide unless he is an applicator certified under a plan approved by EPA, or is under the direct of the control of the provided by EPA or is under the direct of the control of the contro

The regulations explained, however, that this exemption does not apply to veterinarians who are "in the business of applying pesticides for hire, publicly holding thenselves out as pesticide applicators, or engaged in large-scale use of pesticides" (40 CFR 171.3(b)(1)(ii)). Activities such as these would not be part of a "normal practice," and veterinarians would have to be certified to use restricted use pesticides for such purposes. Although the meaning of "normal practice" is broad and may vary according to local needs. some activities clearly do not come within the scope of that term. For instance, application of pesticides by a veterinarian as a "principal or regular occupation" (39 FR 36447), or solicitation of pesticide application business by veterinarians, is not considered part of a "normal practice." Veterinarians who use restricted use pesticides for such purposes, or in any other manner which is not part of their "normal practice," are required to become certified under an appropriate approved State or Federal certification plan, unless they use such pesticides under the direct supervision of a certified applicator.

Although EPA strongly recommends that veterinarians keep abreast of advances in pesticide use and technology through appropriate professional continuing education, veterinarians who do practice within the bounds of 40 CFR 171.4(e) are exempt from the certification requirement. EPA interprets this exemption as also extending to regular employees of a veterinarian when applying restricted use pesticides "under the direct supervision" of the veterinarian. Such supervision requires, unless the pesticide labeling specifies otherwise, that the employee be a competent individual, acting under the supervision and control of a veterinarian who is available if and when needed, even Veterinarians are not authorized to dispense restricted use pesticides to, or supervise the use of restricted use pesticides by, any other uncertified persons, including their clients. However, EPA will specifically consider the need of veterinarians to dispense a pesticide to clients as part of any future decision on whether to restrict use of such a pesti-

The supervising veterinarian is, of course, responsible for the actions of his employees, including any misuse of a pesticide by an employee. In addition, veterinarians must use all pesticides, including those not classified for restricted use, consistently with their registered labeling. As authorized by Section 2(ee) of FIFRA. This includes use against a pest not specified on the labeling as long as the animal or site treated is so specified, unless use.

cide

against that pest is expressly forbidden by the Administrator of EPA.

#### REPACKAGING AND DISPENSING OF PESTICIDES

Sections 3(a) and 7(a) of FIFRA, and regulations thereunder, require every 'producer" of pesticides to register all pesticides produced by him, and to register the establishment in which they are produced, prior to sale or distribution of such pesticides. By regulation, the term "producer" includes all persons who "repackage or otherwise change the container of any pesticide.

" (40 CFR 167.1 (c) and (d)). Therefore, a veterinarian who prescribes or otherwise dispenses a pesticide in a new container, or a container which he has altered [by changing the package or its labeling) after receipt of the original product, is considered a "producer." The veterinarian is, then, legally responsible for registering such a product with EPA (even though the original product may already have been registered by its producer); for registering his establishment; for complying with all applicable labeling and packaging standards established by EPA; and for keeping all records required of producers under Section 7(c) of FIFRA and 40 CFR 167.5.

However, EPA recognizes the substantial benefits which may be gained by permitting veterinarians who obtain pesticides in bulk containers to dispense such pesticides to clients in individual containers better suited to the specific case for which each pesticide is prescribed. EPA also recognizes the care with which most veterinarians prescribe, package, and distribute pesticides. Therefore, EPA, as a matter of policy, will not subject veterinarians who prescribe and dispense repackaged pesticides to the requirements imposed on "producers," provided that the following minimal conditions are met.

(1) The pesticide is registered by EPA for a use consistent with the use for which the pesticide is prescribed. and the EPA registered use is not classified as restricted. (2) The veterinarian supplies the

client with labeling for the pesticide which contains:

(a) The name(s) and percentage(s) of the active ingredient(s);

(b) The EPA product registration number:

(c) Use directions for the use prescribed:

(d) Human safety precautionary statements;

(e) An antidote statement: (f) Directions for disposal of the pesticide and the package dispensed to

the client; and (g) The name and address of the vet-

ermarian.

If the original labeling accompanying the pesticide, as received by the veterinarian, would satisfy some of the above requirements, a copy of that labeling may be supplied to the client in partial satisfaction of these conditions. In all cases, however, at a minimum, the information contained in (a), (b), (c), and (g) above must be physically attached to the package given to the client

(3) The container in which the pestlcide is dispensed to the client is a childproof package as described in 40 CFR 162.16 of the "Special Packaging" rule (44 FR 7695), unless the veterinarian has determined that the package is not likely to come within the reach of children.

(4) The pesticide is prescribed and dispensed to the client for the treatment of a specific pest problem, on a case-by-case basis, as part of the veterinarian's "normal practice."

In addition to meeting the above requirements, all veterinarians distributing pesticides are urged to discuss labeling directions with the client at the time the pesticide is dispensed.

Any veterinarian who repackages and dispenses pesticides, and who does not satisfy conditions (1) through (4) above, must comply with all federal registration and recordkeeping requirements for "producers," and may be penalized under Section 14 of FIFRA for failure to do so.

#### PRODUCING AND DISPENSING SPECIAL PESTICIDE FORMULAS

Veterinarians who prepare their own special products for treatment of pests-by altering the original formulation of another pesticide (other than by mere dllution in accordance with the pesticide labeling), or by combining ingredients which are not otherwise considered pesticides may also be "producers," If the product formulated by the veterinarian is a "new animal drug" [as defined in 21 U.S.C. 321(w) and 321(g)(1)], the product and the veterinarian are subject to regulations of the U.S. Food and Drug Administration. If, however, the product is not a "new animal drug," or an animal feed containing a new animal drug, and is intended to prevent, repel, mitigate, or destroy any pest, it is a pesticide [Section 2(u) of FIFRA] and is subject to the primary jurisdiction of EPA. The veterinarian is then considered a "producer" under FIFRA Section 2(w).

As described above, "producers" are ordinarily required to register products and establishments, to keep records, and to meet labeling and packaging standards. If, however, the veterinarian produces a special pesticide blend solely for his own use, or use by persons in his presence and under his immediate supervision, then the veterinarian is exempt from these requirements [See, e.g., 40 CFR 162.3(gg); 162.5(a); 167.2(a)]. Nevertheless, when mixing or using special pesticide blends, veterinarians are still required to comply with the labeling directions of any registered pesticides used. In addition, EPA recommends that labeling meeting the minimum standards of 40 CFR Part 162 accompany the special blend, in order to promote safe use, storage, and disposal of such pesticides by the veterinarian and his employees. Also, when applying a special blend which will leave a residue on or in an animal intended for use as food. the veterinarian must ensure that the ingredients used have been granted necessary clearances under the Federal Food, Drug, and Cosmetic Act.

On the other hand, veterinarians who formulate special pesticide mixtures for distribution to others are legally subject to all registration, labeling, and packaging requirements imposed on producers. However, EPA recognizes the benefit which may be obtained by allowing veterinarians to formulate products to meet unusual cases. Therefore, EPA will not subject veterinarians who dispense such products to these requirements if:

(1) The special pesticide blend is produced by mixing two or more pesticides already registered by EPA, or by altering the composition of an EPA registered pesticide, provided that special blends made from registered pesticides classified for restricted use by EPA are not dispensed to uncertified clients.

(2) The special blend is formulated and dispensed in accordance with recognized clinical practices and not primarily for purposes of experimenta-

(3) The use prescribed is consistent with uses authorized by the labeling of the registered products used as ingredients, and the use directions in the labeling for the registered ingredients(s) do not prohibit the mixture or alteration performed by the veterinarian.

(4) The special product is prescribed and dispensed to individual clients of the veterinarian on a case-by-case basis to meet specific pest problems. (5) The veterinarian supplies the

client with labeling for the special product which contains: (a) The name(s) and percentage(s) of

active ingredient(s): (b) The EPA registration number for each registered product used as an in-

gredient: (c) Use directions for the use prescribed, which are consistent with the directions found in the original labeling for the registered products used as ingredients:

(d) Human and environmental safety precautionary statements;

(e) An antidote statement;

(f) Directions for disposal of the pesticide and its container; and

(g) The name and address of the veterinarian; provided that (a), (b), (c), and (g) shall be physically attached to the container of the special product

sold to the client.

(6) The container in which the special product is sold to the client is a childproof package, as described by the "Special Packaging" rule, unless the veterinarian has determined that the package is not likely to come within the reach of children.

In addition to meeting the above requirements, all veterinarians distributing their own special products are encouraged to discuss labeling instructions for the special product with the client at the time the pesticide is dis-

pensed.

Veterinarians who do not meet these conditions when distributing specially formulated pesticides must comply with all registration, recordkeeping, labeling, and packaging requirements established for "producers." Fallure to comp . may result in the imposition of penalties under Section 14 of FIFRA.

#### SPECIAL PACKAGING

As mentioned above, it is expected that veterinarians who "produce" pes-ticides for their clients' use will frequently be subject to the requirements of the "Special Packaging" rule. That is, a veterinarian producing a pesticide which meets the toxicity requirements of the "Special Packaging" rule must package the product in a child-resistant container before dispensing it to the nublic

In addition, in those cases where the rule will not apply by its own terms, but the prescribed pesticide is likely to come within the reach of children, voluntary compliance is a prerequisite to certain exemptions from registration, recordkeeping, and labeling require-

ments.

These facts, coupled with the practical difficulty that some veterinarians may have in determining whether a prescribed pesticide is subject to the terms of the "Special Packaging" rule, make it to the veterinarians' advantage to comply with the rule whenever there is a reasonable possibility that a prescribed pesticide will be handled by children. Therefore, voluntary compliance with packaging standards established by the rule is strongly encouraged for the above reasons, and also to increase safety in the use by clients of prescribed pesticides.

#### STATE REGULATIONS OF VETERINARIANS.

This proposed policy statement concerns only EPA policy under FIFRA and Federal regulations. It does not apply to State regulatory restrictions covering veterinarians who deal with pesticides. Therefore, all veterinarians should consult their local professional associations, licensing offices, and State pesticide regulatory agencies for detailed information on local requirements

Dated: March 2, 1979.

JAMES M. CODLON. Associate Deputy Assistant Administrator for Pesticide Programs.

Dated; February 26, 1979.

RICHARD D. WILSON, Deputy Assistant Administrator for General Enforcement. [FR Doc. 79-7903 Filed 3-14-79; 8:45 am] STATE OF MONTANA

MONTANA STATE LADDARY
980 E Lyndels & Helene, Montana 50001

# DEPARTMENT OF LIVESTOCK

HEALIH DIVISION
MONTANA 59601

# MONTHLY LETTER

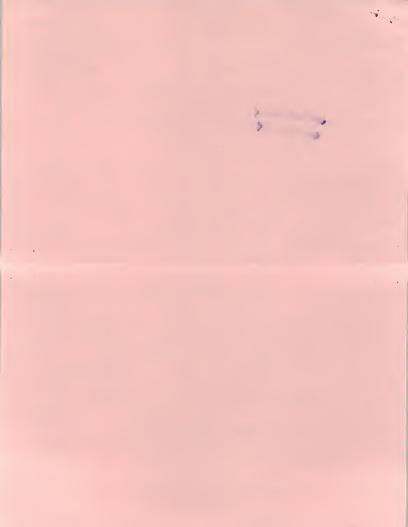
# BOARD OF LIVESTOCK

## JAMES W. GLOSSER, D.V.M.

ADMINISTRATOR

8

STATE VETERINARIAN



# STATE OF MONTANA DEPARTMENT OF LIVESTOCK Animal Health Division Helena, Montana 59601

## MONTHLY LETTER

#### MARCH

#### LADY LUCK TOPS BEEF, PORK SHARE OF DISPOSABLE INCOME

The following is an excerpt from the Meat Board Report, Volumn XII, No. 1, January 8, 1979:

"From the "Little-known statistics" department. Americans gamble an estimated \$177 each per year (tops in the world), according to recent newspaper review of The Book of Numbers. That's 2.9% of estimated per capita disposable income for 1977. In comparison, Americans spent some \$127.77 apiece for beef that year, or 2.1% of disposable dollars. For pork, U.S. Consumers spent about \$71.39 per capita, or 1.2% of d.i. So, the next time somebody says meat prices are too high, simply say: "Wanna Bet?"

## REQUIREMENTS FOR MARES BEING BRED IN KENTUCKY - 1979 BREEDING SEASON

The following was sent from the Kentucky Department of Agriculture:

"NO RISK MARES (Mares other than High, Medium and Low Risk)

- 1. BARREN AND FOALING MARES BRED IN KENTUCKY, 1978: Any mare bred in Kentucky during the 1978 breeding season must have a record of a negative C.F. test taken between 15 and 40 days post breeding. If the mare did not have a C.F. test taken between 15 and 40 days post breeding, we will require a negative blood test for CEM\* and a set of negative CEM cultures (endometrial, clitoral fossa, and clitoral sinus). The blood samples may be obtained for CEM blood tests at the same time as the CEM cultures. Proof of this testing must accompany the mare to the breeding shed.
- MAIDEN MARES AND MARES NOT BRED IN 1978: A maiden mare and mares not bred in 1978 must have a negative blood test for CEM before they will be eligible to be bred in 1979. Proof of this testing must accompany the mare to the breeding shed.
- MARES BRED OUTSIDE KENTUCKY, 1978: All mares from out of state which arrive without proof of C.F. test must have a blood test taken immediately upon arrival. Proof of negative blood testing must accompany the mare to the breeding shed.
- 4. <u>RETURN COVERS (1979 Breeding Season)</u>: All mare owners are required to produce proof that blood samples were taken from the mare 14 to 40 days after last breeding date for blood testing before the mare will be eligible for a return cover in the 1979 season Proof of this testing must accompany the mare to the breeding shed. Presentation of a copy of the laboratory report is not required. A statement signed by your veterinarian certifying the date on which the blood was drawn will constitute proof of testing.

#### HIGH, MEDIUM AND LOW RISK MARES

High, Medium and Low Risk mares will only be bred if the stallion manager has in his possession the original or copy of the Kentucky State Quarantine Release.

#### IMPORTED MARES

Any mare (or racing filly or mare) that was imported to the United States in 1976, 1977 or 1978 must have a set of negative CEM cultures (endometrial, clitoral fossa and clitoral sinus) and a negative blood test before she will be eligible for breeding in 1979. Proof of this testing must accompany the mare to the breeding shed.

\* A new blood test (plate agglutination test) has been developed by the University of Kentucky that will detect the presence of CEM antibodies several months after exposure to the CEM bacterium. Most mares infected in 1978 are still positive with this test. Blood submitted to the laboratory will be tested with the plate agglutination and C.F. test for the presence of CEM antibodies. Blood tests are only useful for mares. Stallions naturally infected do not develop detectable CEM antibodies."

Compendium of Animal Rabies Vaccines, 1979

Prepared By: The National Association of State Public Health Veterinarians, Inc. P.O. Box 13528 / Baltimore, Maryland 21203

#### Part I: Recommendations for Immunization Procedures

The purpose of these recommendations is to provide information on rabies vaccines to practicing veterinarians, public health officials, and others concerned with rabies control. This document will serve as the basis for animal rabies vaccination programs throughout the United States. Its adoption by cooperating organizations will result in standardization of recommendations and requirements among jurisdictions which is necessary for an effective national rabies control program. These recommendations shall be reviewed and revised as necessary prior to the beginning of each calendar year.

In assessing the purposes of the Compendium, the Committee recognized the need to review all licensed vaccines to ensure that the public health considerations in regard to animal rabies vaccines, remain of paramount concern nationally. All rabies vaccines currently marketed in the United States are included in the Compendium.

VACCINE ADMINISTRATION: It is recommended that all animal rabies vaccines be restricted to use by or under the supervision of a veterinarian

VACCINE SELECTION: While recognizing the efficacy of vaccines with the shorter durations of immunity, the Committee recommends the use of vaccines with the three year duration of immunity since they offer the least expensive and most effective method of community rabies control

ROUTE OF INOCULATION: All rabies vaccines must be administered intramuscularly at one (1) site in the thigh.

HIGH RISK RABIES AREA: (where revaccination schedules may be altered from stated recommendations). High risk rabies areas are defined for the purpose of canine rables vaccination to mean any area (County, City, or Town) wherein indigenous dog-to-dog rables transmission is occurring as identified by the local Health Department.

WILDLIFE VACCINATION: Since data on efficacy and duration of immunity are generally lacking, no vaccine is licensed for use in wildlife in the United States. It is recommended that neither wild nor exotic animals be kept as household pets.

ACCIDENTAL HUMAN EXPOSURE TO VACCINE: Accidental inoculation or other exposure may occur to individuals during the administration of animal rabies vaccines. Such exposure to INACTIVATED vaccines constitute no known rabies hazard. Public Health Officials should be consulted in the event of accidental human exposure to other types of vaccines.

IMPLEMENTATION OF COMPENDIUM: In order to implement a more meaningful and manageable program of rabies vaccination for dogs and cats in the United States, the NASPHV recommends that all states promptly adopt the following standard certificate and tag system. This will aid the administration of local, state, national and international procedures. Veterinary practitioners and rabies control authorities are encouraged to specify the supplying of the standardized tags and certificates when rabies vaccine is ordered. Standardized tags can help a bite victim identify the vaccination status of an animal that cannot be apprehended. Such information is valuable to the attending physician. Committee recommendations for tag colors and shapes by year as well as standardized certificate are: 1. RABIES TAGS:

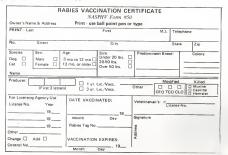
CALENDAR YEAR 1979	COLOR Green	SHAPE Bell		
1980	Red	Heart		
1981	Blue	Rosette		
1982	Orange	Fireplug		

Licensed tags should not conflict in shape and color with rabies tags. The schedule for shapes and colors will be repeated commencing in

II. RABIES CERTIFICATE: 4" x 6" printer's ready proofs and samples are available from the NASPHV and state public health veterinarians. Since the form is standardized for administrative and computerization purposes, changes cannot be permitted without approval by the NASPHV. Biologic manufacturers may submit "logo" inserts for approval. Agencies may print & adopt the form by reference to form number NASPHV Form #50. Provide owner's copy, agency copy, veterinarian's copy.

Flexibility has been created by allowing two spaces: The "other data" can be used if vaccine lot numbers are required by jurisdictions. The space labeled "other" (in Licensing Block) may be used for special licensing information such as neutered status & county of residence, and etc.

When this form is printed in other than the English language, the form must remain unchanged except for the translation.



# National Association of State Public Health Veterinarians, Inc. Compendium of Animal Rabies Vaccines

Part II: Vaccines Marketed in the U.S. - 1979

Vaccine: Generic Name	Produced By	Marketed By (Product Name)	For Use In	Oosage*	Age at Primary Vaccination	Booster Recommende
A) MODIFIED LIVE VIRUS						
** Chicken Embryo Origin	FROMM		1			
Low Egg Passage, Flury	License No. 195-A	Fromm	Oogs	1 ml	3 mos. &	Triennially
Strain	. License No. 195-A	(Raboid)			1 yr. later***	riennialty
Canine Cell Line Origin	NOROEN	Norden			3 mos. &	
-	License No. 189	(Endurall-R)	Oogs	1 mt	1 yr. later ***	Triennially
High Egg Passage, Flury Strain Porcine Tissue Culture Origin			Cats	1 mi	3 months	Annually
	7		Oogs	1 ml	3 mos. &	
			Jougs	1 1111	1 yr. later ***	Triennially
	JENSEN-	Jensen-Salsbery (ERA Strain	Cats	1 ml	3 months	Annually
	SALSBERY		Cattle	1 ml	4 months	Annually
High Cell Passage, SAO Strain	License No. 107	Rabies Vaccine)	Horses	1 ml	4 months	Annually
			Sheep	1 ml	4 months	Annually
			Goats	1 ml	4 months	Annually
	PHILIPS	Bio-Ceutic			3 mos. &	
Canine Tissue Culture Origin	ROXANE	(Neurogen-T-C)	Oogs	1 ml	1 yr. later ***	Triennially
High Cell Passage, SAO Strain	License No. 124	(iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	Cats	1 ml	3 months	Annually
Canine Tissue Culture Origin	PHILIPS	Bioceutic				
High Cell Passage, SAO Strain	ROXANE	(Unirab)	Oogs	1 ml	3 months	Annually
	License No. 124					
Canine Tissue Culture Origin	PHILIPS	Pitman-Moore	Oogs	1 ml	3 mos. &	
High Cell Passage, SAO Strain	ROXANE License No. 124	(Rabvax)			1 yr. later***	Triennially
Bovine Kidney Tissue Culture			Cats	1 ml	3 months	Annually
Origin	PITMAN- MOORE	Pitman-Moore (Rabies Vaccine)	Oogs	1 mi	3 months	Annually
High Cell Passage, SAO Strain	License No. 264	(nables vaccine)			o months	Amounty
Hamster Cell Line Origin						
	BEECHAM License No. 225	Beecham	Oogs	1 ml	3 months	Annually
High Cell Passage, Kissling Strain	License Wo. 225	(Rabtect)			3 110111115	Annually
B) INACTIVATED VACCINES	BANOY	Bandy	Oogs	2 ml		
Caprine Origin	License No. 227	(Rabies Vaccine)	Oogs	2 mi	3 months	Annually
			Cats	2 ml	3 months	Annually
Murine Origin	ROLYNN	Ft. Oodge	Oogs	1 ml	3 mos. &	
	License No. 266	(Trimune)	oogs		1 yr, later ** *	Triennially
			Cats	1 ml	3 months	Annually
Murine Origin	ROLYNN	Ft. Oodge	Dogs	1-1		
	License No. 266	(Annumune)	nogs	1 mi	3 months	Annually
Hamster Cell Line Origin	BEECHAM	Beecham	Oogs	1		
High Cell Passage, Kissling	Licanse No. 225	(Rabcine)	ougs	1 ml	3 months	Annually
Strain			Cats	1 ml	3 months	Annually
Harris Call II and	BEECHAM	Beecham				
Hamster Cell Line Origin	License No. 225	(Rabcine-	Cats	1 ml	3 months	
High Cell Passage, Kissling						Annually

# \*ALL VACCINE MUST BE ADMINISTERED INTRAMUSCULARLY AT ONE SITE IN THE THIGH.

\*\*This type of vaccine has caused an unacceptable number of canine vaccine induced rabies cases and is no longer being produced. \*\*Three months is the earliest age recommended. Dogs vaccinated between 3-12 mos. should be revaccinated one year later.

THE NASPHY COMPENDIUM COMMITTEE FOR 1979 Malvin K. Abelseth, DVM, DVPH, PhD. Kathlaan H. Acrae, MD, MPH, J.D. Kannath L. Crawford, DVM, MPH, Chairman Luther E. Fredrickson, DVM, MPH R. Kaith Sikas, DVM, MPH

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DEPARTMENT OF LIVESTOCK ANIMAL HEALTH DIVISION HELENA, MONTANA 59601

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# MONTHLY LETTER

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STATE VETERINARIAN



STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
Animal Health Division
Helena, Montana 59601

#### MONTHLY LETTER

### JANUARY AND FEBRUARY

### SPECIAL NOTICE

Due to moving our office quarters during the month of December, our January Monthly letter went by the wayside. Therefore, we have combined January and February's. Hopefully, we will be on schedule from here on.

Our new location is the Old Highway Building, in the Capitol Complex on the corner of 6th & Roberts Streets.

We have noticed that we are still receiving duplicate forms from some of you, this is not necessary as all we need to have is one copy.

#### CHANGE IN LABORATORY PERSONNEL

As of January 5, 1979 Dr. Beck Hubbell's employment with the Diagnostic Laboratory Bureau, was terminated by resignation.

Dr. Don Ferlicka has been appointed as Acting Bureau Chief, and is pursuing duties in Bozeman to insure an uninterrupted work flow from the lab.

#### NITRATES-NITRITES-NITRASAMINES

The following excerpts from a USDA, ES & C Service publication (ESCS-44) December 1978. Attempt to show some of the problems that may occur as a result of government regulation.

During the past decade, the use of nitrates and nitrites in curing meat has become increasingly controversial. Nitrite has been found to interact with secondary and tertiary amines to produce nitrosamines -- compounds that are carcinogenic to laboratory animals. Recent evidence suggests that sodium nitrite itself may be a carcinogen.

The potential problems associated with use of these chemicals present a major dilemma to policy makers. Continued use could pose a significant long run threat to public health. Prohibiting their use, however, may imply an immediate health threat from botulism. In addition, consumers would need to adjust their eating patterns, and producers and meat processors would be required to make any resulting economic adjustments. (My emphasis)

A ban on nitrite use in curing bacon would create the need for some economic adjustments in the agricultural and food system. Food prices would probably increase, reflecting the somewhat higher costs of pork processing. Net income from farming would also be lower, reflecting lower cash receipts from hogs, and such crops as corn and soy beans.

The timing of a ban would be crucial to the production estimates. If a ban were imposed at a time when red meat production was at a low point, the first year price impact would be more dramatic and could persist longer than indicated. Also important would be the first year response by no producers. Lower prices could discourage producers, resulting in a more rapid liquidation of stock.

A nitrite ban would result in reduced net farm income. If the ban had gone into effect during 1976, hog producers receipts would have been \$580 millon less.

The higher meat-product prices resulting from a nitrite ban also would be reflected in the Consumer Price Index (CPI) for tood.

# VETERINARY ACCREDITATION & DEPUTYSHIPS

Once again it is essential to warn all veterinarian's of the gravity of signing official documents. Each time your signature appears on a health certificate, Brucellosis vaccination certificate or other official form, you have put your career on the line for the price of that particular service.

Unfortunately, at present we have a Montana veterinarian whose accreditation is being questioned and revokation is being sought by California. This man wrote a health certificate indicating that a shipment of Holstein heifers were all Brucellosis vaccinated and tattooed, when in fact only part of the shipment carried tattoos. The cattle were represented to him as vaccinates and an incomplete investigation by this man revealed some official tattoos, so the health was written.

At the time the cattle were received in California, inspection by that state's authorities indicated that 62 of 73 head received showed no tattoos.

When a case such as this occurs and these animals cross state lines, Montana's ability to intercede is limited. The Federal Government does not pursue the shipper or receiver, but attacks the veterinarian that signed that certificate.

Please remember that it's just not worth doing a poor job, the only one that suffers is  $\underline{you}$ . Granted it's difficult at times to listen to the "guff" you get from an impatient shipper but you are there to keep both YOU and HIM out of trouble.

## SCABLES EXPOSURE IN MONTANA

In the latter part of December, Idaho notified the Disease Control Bureau that cattle that had summered in Montana were inspected on return to Idaho and two Bulls in the consignment were scraped and dragnosed positive for infestation with <a href="mailto:psoroptes">psoroptes</a> <a href="mailto:scabei">scabei</a>. These animals were part of a corporate ranch's movement of cattle to summer <a href="mailto:smoroptes">grass</a> in Montana.

The ranch company, which owns or controls ranches in New Mexico, California, Idaho and Beaverhead County had objected, vehemently last spring, to Montana's import requirements requiring dipping of cattle from Texas, New Mexico and California. At the time permits were requested, the manager decided to send

Idaho ranch cattle to Montana and the New Mexico-California cattle to the Idaho ranch. Mr. Manager was informed at that time that trans-shipment of those southern cattle to Idaho and representation of them as Idaho cattle would be frowned upon.

At approximately this same time the import brand inspection requirement was dropped by the Department of Livestock.

Needless to say a goodly number of cattle were injected into their Montana summer pasture.

After the notification by Idaho, an investigation was instituted and it was decided that approxymately 3000 head of cattle that had summered adjacent to these "hot" imports were exposed and control measures should be instituted.

The portable dip vat, purchased by the Department in June was moved from Alzada to Dell and dipping was started. Dipping was conducted at two different sites in weather ranging from about 15 degrees above to 22 degrees below zero.

The Department expended almost \$7000 in this effort and this cost does not reflect the costs incurred by the ranchers involved, in moving their cattle to the vat, labor, shrinkage, and other indirect costs absorbed by them.

USDA, APHIS estimates that all costs in dipping cattle, both governmental and private, in an exposure case run \$4\$ to \$5 per head. Since the Departments costs alone ran about \$2.33 it isn't out of reason to assume the  $\underline{total}$  cost of this incident probably ran at almost the \$4\$ to \$5\$ per head figure.

The exposed cattle around this area are being monitored closely for any signs of scables outbreak.

An attempt is being made to document the case sufficiently to enable the Department to present the bill for clean up to the ranch responsible for the exposure.

Not only can we not afford the disease inroads of an outbreak of scables, we can ill afford the monetary  $\ensuremath{^{10}\text{S}}$ 

